MANUAL TRANSMISSION

Service manual

1991-1996
Dodge Stealth R/T Turbo
1990-1999
Mitsubishi GTO Twin Turbo
1991-1999
Mitsubishi 3000GT VR4

W5MG1,W6MG1
MANUAL TRANSMISSION

Preface

This book was translated from the original Japanese language service manual published by Mitsubishi Motors Corporation of Japan. Translation was performed by volunteers from 3000GT/Stealth International, an owners and enthusiast group focused on the Mitsubishi 3000GT, Dodge Stealth and Mitsubishi GTO.

Great care has been taken to ensure the accuracy of the information contained in this manual, but errors may still be possible due to the nature of the translation. Therefore, this manual is presented as a guide only, and repair procedures should not be undertaken by unskilled individuals who do not posess a thorough understanding of the subject material.

The authors of this manual will not be held responsible for any personal injury or damage to property incurred while performing the procedures described within.

All tasks in this manual are undertaken at your own risk.

Group Index

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Applicable Models

This book covers the Getrag W5MG1 and W6MG1 all-wheel drive manual transaxles found in the following models:

1991 - 1996 Dodge Stealth R/T Turbo
1991 - 1999 Mitsubishi 3000GT VR4
1990 - 1999 Mitsubishi GTO Twin Turbo

This book would not be possible without the contributions of the following people:

Translation, and layout
Jeff VanOrsdal
Additional Translation
Frank Chen, Kotaru Yamaguchi, Corumisri
Technical Assistance
Bret Brinkmann
Jeff Lucius
Financial assistance
Many generous members of 3000GT / Stealth International

Introduction

Scope of this manual

This book explains the main service points regarding the transmission itself. However, please utilize the relevant service manual for the car model and year in question when concerns arise regarding onboard inspection and service.

Important points

(1) Component diagrams are published at the beginning of each section so that you may more easily visualize the assembled state of the component or sub-assembly.

(2) Numbered service procedures are displayed in the component diagrams along with indications of non-reusable parts and torque specifications.

(3) Main service points and maintenance points are explained in detail, along with usage and descriptions of special tools.

About inspection

Descriptions are provided for procedures to be taken when defective or damaged parts are discovered during inspection.

Symbols for lubricants, sealants and adhesives
Information concerning the locations of lubricarion and for application of sealants and adhesives is provided, by using symbols, in the diagram of component parts or on the page following the component parts page.

.....Grease (multipurpose unless there is a brand or type specifed)

.....Brake fluid or automatic transmission fluid

.....Sealant or adhesive

.....Gear oil

Removal procedures
The part designation number corresponds to the number in the illustration to indicate removal procedures.

Disassembly procedures
The part designation number corresponds to the number in the illustration to indicate disassembly procedures.

Installation procedures
Specified in case installation is impossible in reverse order of removal procedures. Omitted if installation is possible in reverse order of removal procedures

Reassembly procedures
Specified in case reassembly is impossible in reverse order of disassembly procedures. Omitted if reassembly is possible in reverse order of disassembly procedures.

Classification of major maintenance or service points

: Indicates that there are essential points for removal or disassembly.

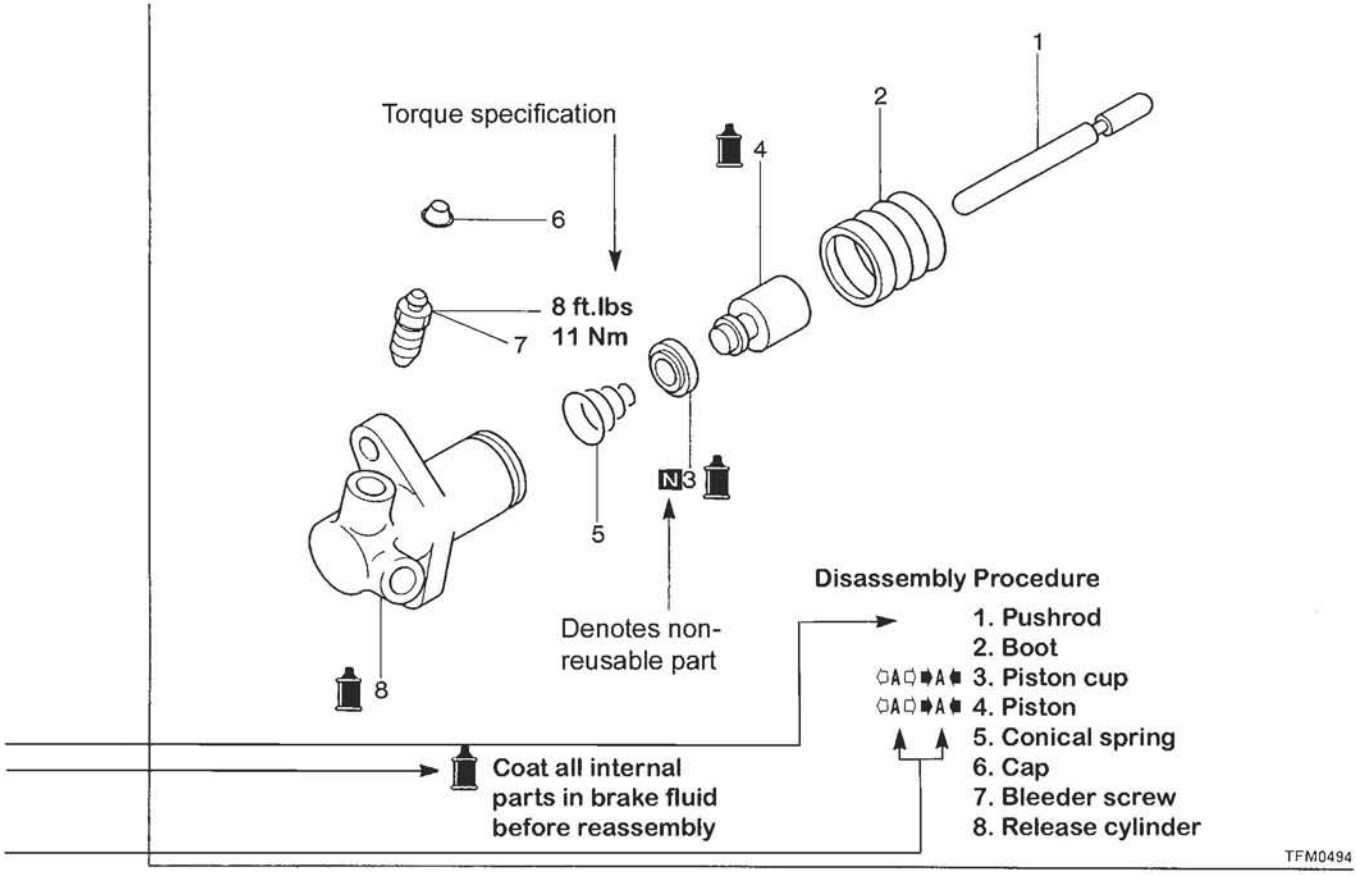
: Indicates that there are essential points for installation or reassembly.

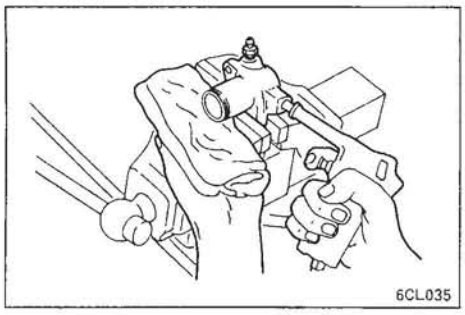
Group number and page number → 21 - 8

Group title → Clutch - Clutch Release Cylinder

Section title

Disassembly / Reassembly





Disassembly service points

A Removal of piston cup / piston

(1) Remove the corrosion from the piston-removal port of the release cylinder.

(2) Remove the piston from the release cylinder using compressed air.

Caution

1. Cover with rags to prevent the piston from popping out.

2. Apply compressed air slowly to prevent brake fluid from splashing.

21 CLUTCH

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Clutch Assembly.....21-4
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Maintenance Standards

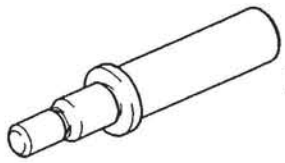
Item	Limit Value mm
Clutch disk facing rivet sink	Below 0.3
Diaphragm spring end height difference	Within 0.5
Opening of release cylinder bore and piston major diameter	Above 0.15

Torque Specifications

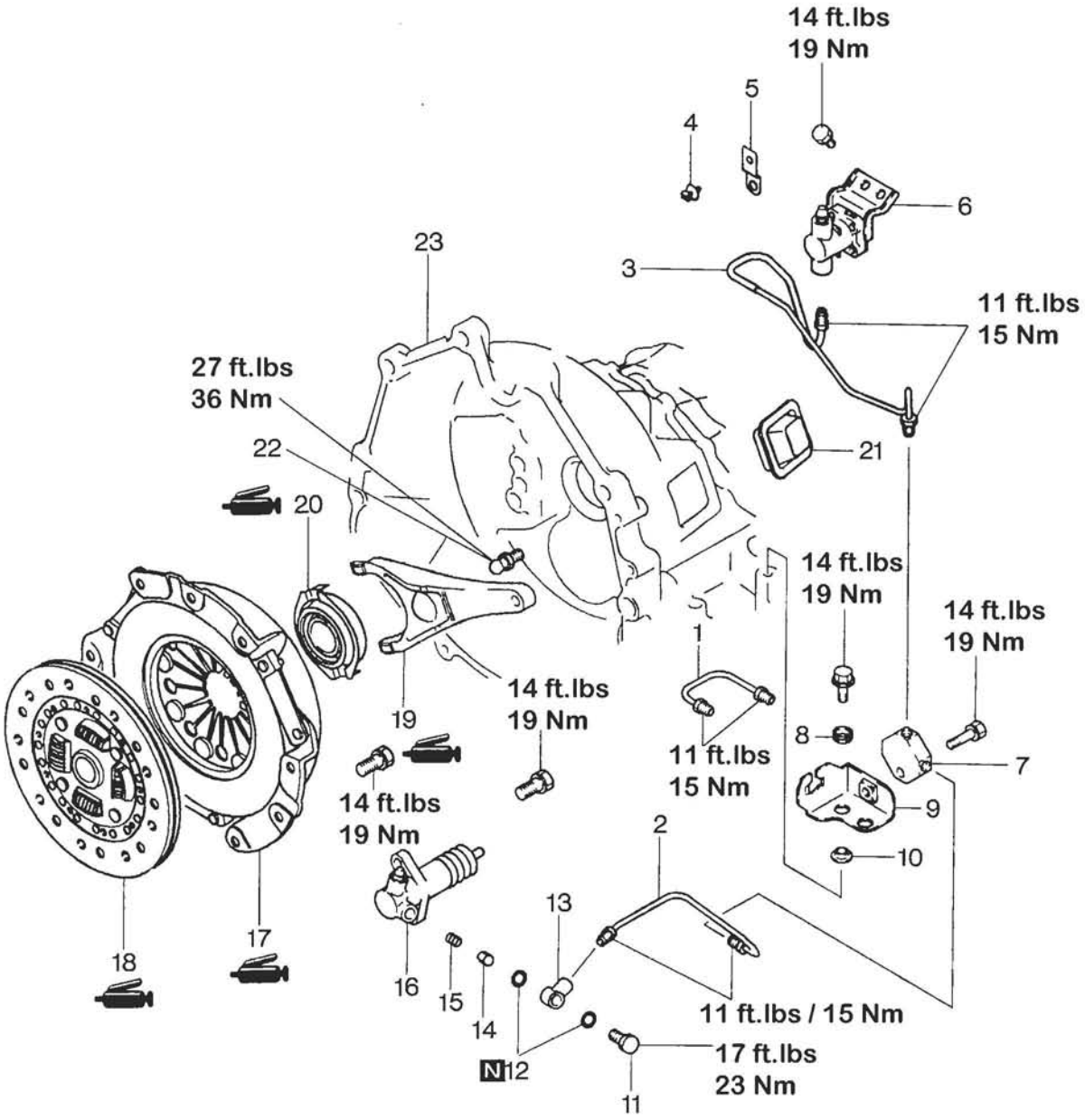
Item	Torque
Clutch damper bracket attachment bolt	6.5 ft.lbs / 9 Nm
Clutch damper installation bolt	14 ft.lbs / 19 N.m
Clutch oil tube filling nut	11 ft.lbs / 15 Nm
Release fork fulcrum	26 ft.lbs / 36 Nm
Clutch oil line bracket attachment bolt	14 ft.lbs / 19 N.m
3-way type connector mounting bolt	14 ft.lbs / 19 N.m
Clutch release cylinder mounting bolt	14 ft.lbs / 19 N.m
Union bolt	17 ft.lbs / 23 Nm
Clutch cover installation bolt	14 ft.lbs / 19 N.m
Clutch release cylinder air breather	8 ft.lbs / 11 Nm
Clutch damper air breather	6.5 ft.lbs / 9 Nm

Lubricants

Item	Specified lubricant
Clutch release bearing sleeve diameter	Molykote TA #2
Clutch release bearing and shift fork contact section	
Shift fork and fulcrum contact section	
Clutch release cyliner pushrod tip	
Inside splines of clutch disk	Molykote TA #1 or #2
Clutch release cylinder piston and piston cup	SAE J1703 (DOT3)
Clutch damper O-ring	

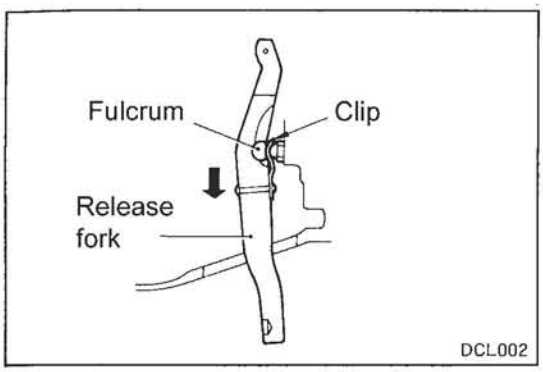
Tool	Part Number	Name	Use
	**MD998126**	Clutch disk centering guide	Positioning the clutch disk

Removal / Installation



Removal Procedure

1. Clutch cylinder release tube
2. Clutch cylinder release tube
3. Clutch cylinder release tube
4. Clip
5. Bracket
6. Clutch damper
7. 3-way junction block
8. Insulator
9. Bracket
10. Insulator
11. Banjo bolt
12. Crush washer
13. Union
14. Release cylinder valve
15. Release cylinder spring
- ◆D◆ 16. Clutch release cylinder
- ◆C◆ 17. Clutch cover
- ◆C◆ 18. Clutch disk
- ◇A◇◆B◆ 19. Clutch release fork
- ◆A◆ 20. Throw-out bearing
21. Boot
22. Release fork fulcrum
23. Clutch housing



Removal service points

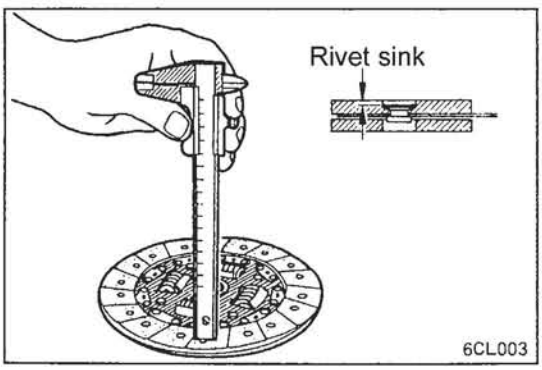
⇦A⇨ Release fork removal

(1)Slide release fork in direction of arrow and disengage fulcrum from clip to remove release fork. Be careful not to cause damage to clip by pushing release fork in the direction other than that of arrow and removing it with force.

Inspection

Clutch cover assembly

(1)Check the diaphragm spring end for wear and uneven height. Replace if wear is evident or height difference exceeds the limit.
Limit: 0.5 mm (.020 in.)
(2)Check the pressure plate surface for wear, cracks and seizure.
(3)Check the strap plate rivets for looseness and replace the clutch cover assembly if loose.



Clutch disk

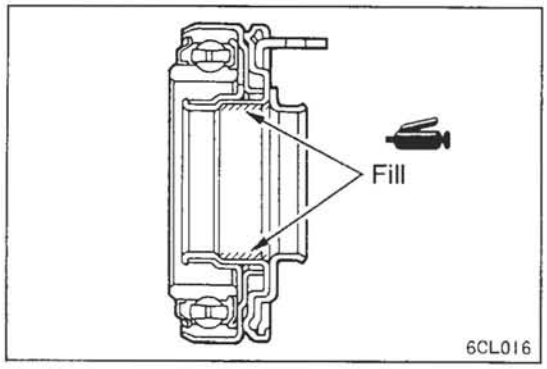
(1)Check the facing for loose rivets, uneven contact, deterioration due to seizure, adhesion of oil or grease, and replace the clutch disc if defective.
(2)Measure the rivet sink and replace the clutch disc if it is out of specification.
Limit: 0.3 mm (.012 in.)
(3)Check for torsion spring play and damage and if defective, replace the clutch disc.
(4)Combine the clutch disc with the input shaft and check sliding condition and play in the rotating direction. If it does not slide smoothly or the play is excessive, check after cleaning and reassembling. If the play is excessive, replace the clutch disc and/or the input shaft.

Clutch release bearing

Caution
Release bearing is packed with grease. Therefore do not wash it in cleaning solvent or the like.
(1)Check bearing for seizure, damage, noise, or improper rotation. Check also diaphragm spring contact surface for wear.
(2)Replace bearing if its release fork contact surface is abnormally worn.

Release fork

(1)Replace release fork if its bearing contact surface is abnormally worn.

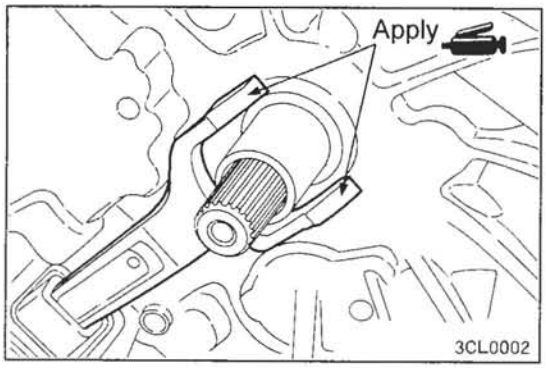


Installation service points

➧A➧ Installation of clutch release bearing

(1) Fill the lip section with grease as illustrated

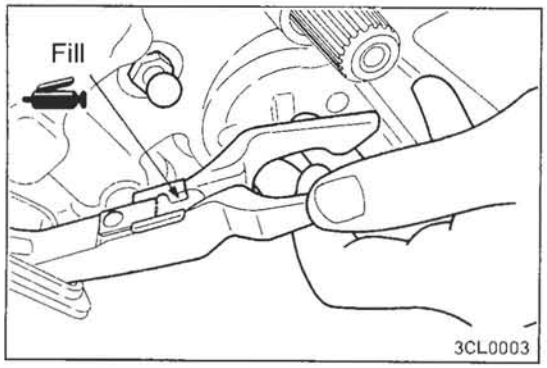
Specified grease:
Molykote TA #2

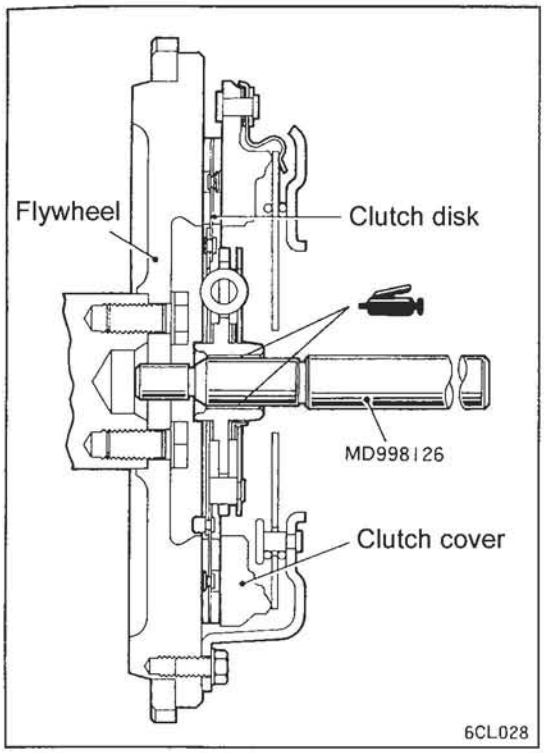


➧B➧ Lubrication of release fork

(1) Apply grease to release fork as illustrated

Specified grease:
Molykote TA #2



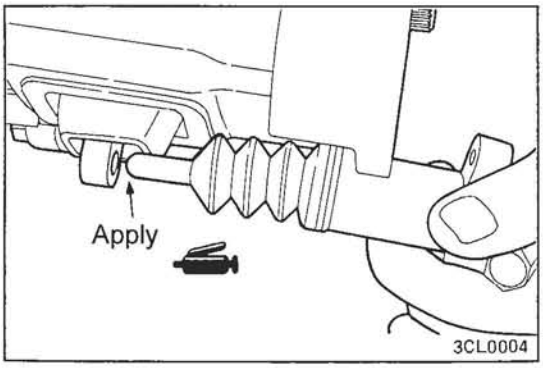


➧C➧ Installation of clutch disk cover

(1) Apply specified grease to clutch disc splines and squeeze it in place with a brush.

Specified grease:
Molykote TA #1 or #2

(2) Use the clutch disc guide to position clutch disc on flywheel.
(3) When installing the clutch cover, tighten the bolts in a diagonal pattern.
(4) Remove clutch guide tool

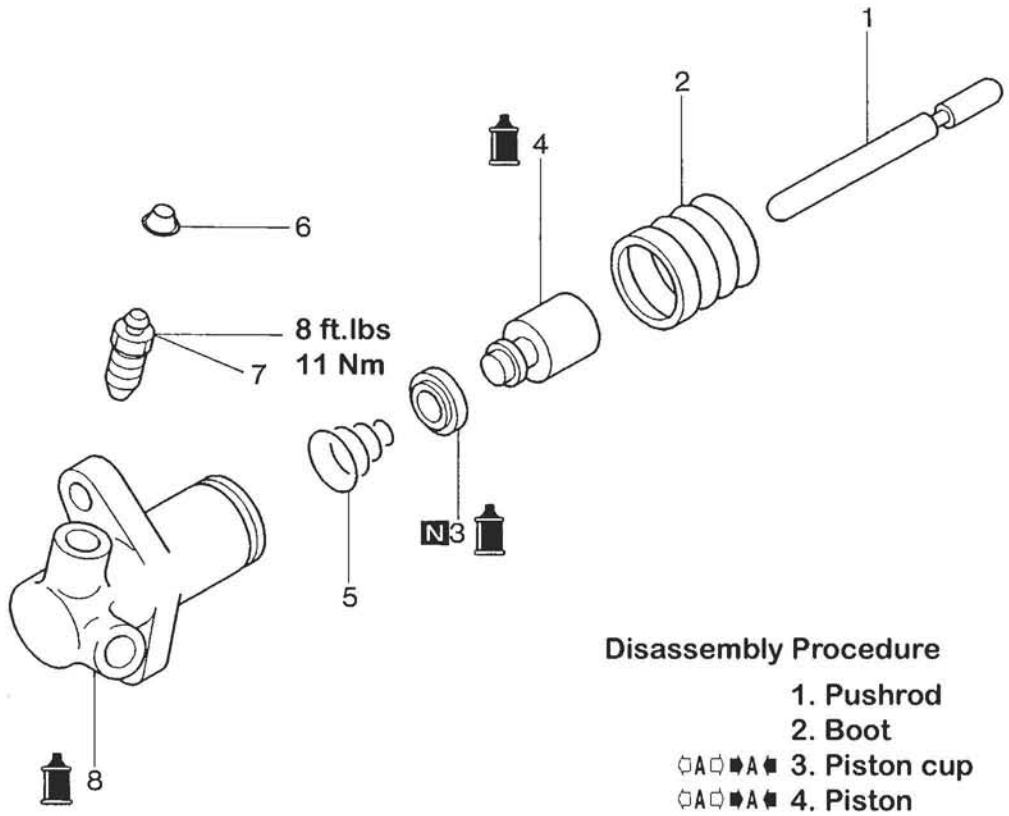


➧D➧ Installation of clutch release cylinder

(1) Apply grease to tip of release cylinder pushrod as illustrated.

Specified grease:
Molykote TA #2

Disassembly/ Reassembly



Disassembly Procedure

1. Pushrod
2. Boot
3. Piston cup
4. Piston
5. Conical spring
6. Cap
7. Bleeder screw
8. Release cylinder

Coat all internal parts in brake fluid before reassembly

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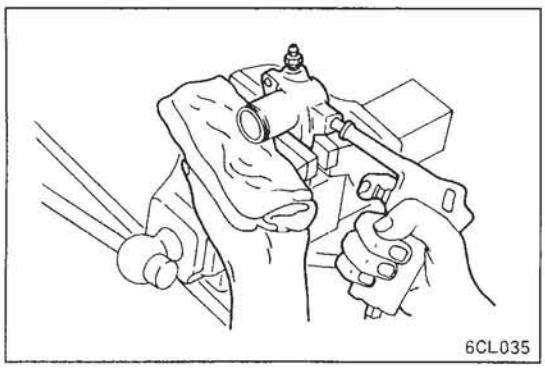


Disassembly service points

⬡A⬡ Removal of piston cup / piston

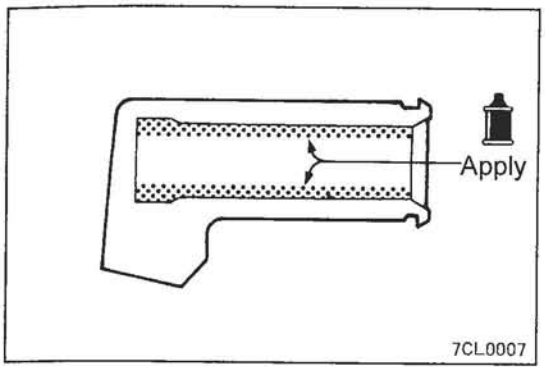
(1) Remove the corrosion from the piston-removal port of the release cylinder.
(2) Remove the piston from the release cylinder using compressed air.

Caution
1. Cover with rags to prevent the piston from popping out.
2. Apply compressed air slowly to prevent brake fluid from splashing.

Inspection

(1) Remove any rust or corrosion from the inside of the release cylinder
(2) Measure the inside diameter of the cylinder at 3 places (bottom, middle and top) If the diameter of the cylinder exceeds the outside diameter of the piston by more than the limit value, replace the release cylinder assembly.

Limit value:
0.15 mm

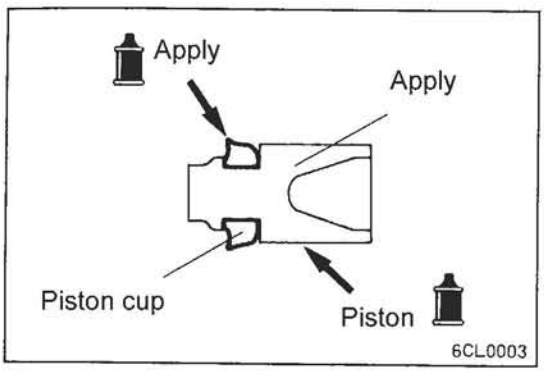


Assembly service points

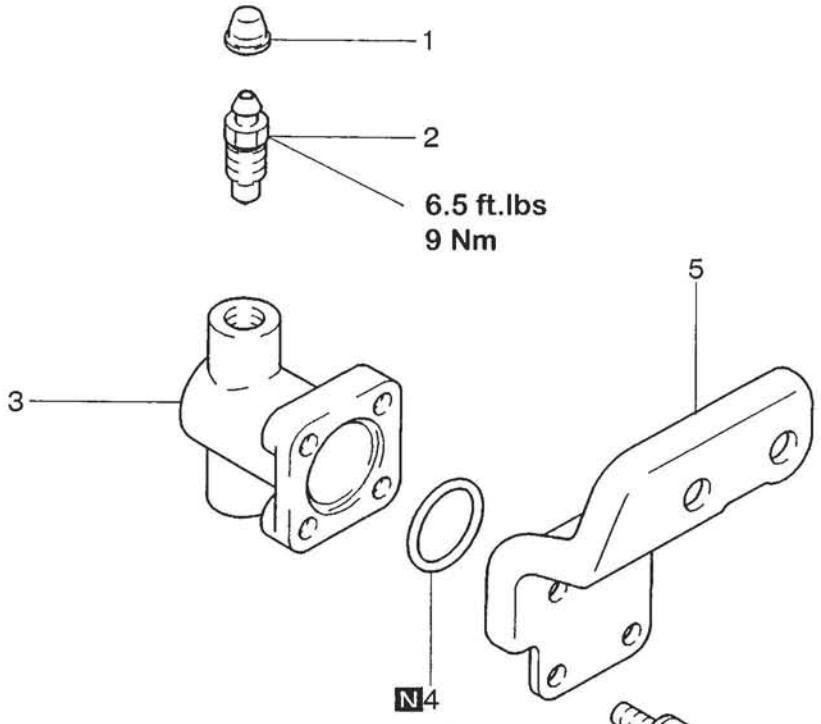
➧A➧ Installation of piston / piston cup

(1)Apply specified brake fluid to the release cylinder inside and outer surface of the piston and piston cup and push the piston cup assembly in the cylinder.

Specified brake fluid:
SAE J1703 (DOT3)



Disassembly/ Reassembly



Disassembly Procedure

1. Cap
2. Bleeder screw
3. Clutch damper
- ◆A◆ 4. O-Ring
5. Clutch damper bracket

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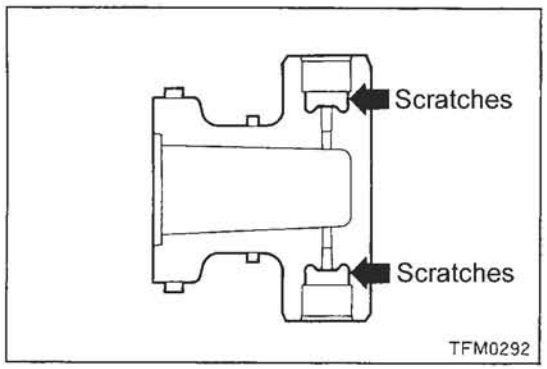
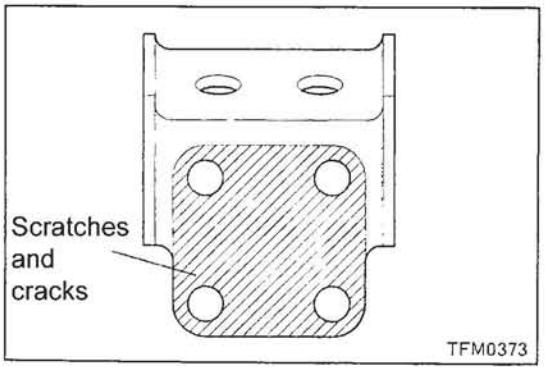




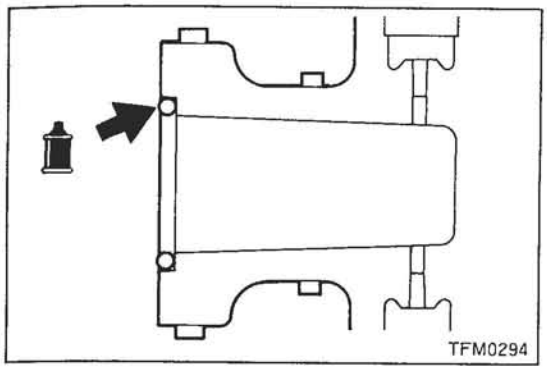
Inspection

Clutch damper

(1) Check that there are no scratches on the parts indicated in the illustration.
(2) Clean completely the inside of the clutch damper and confirm that there is no foreign material left.

Clutch damper bracket

(1) Check that there are no scratches of cracks on the part indicated in the drawing.



Assembly service point
➧A➧ Installation of O-ring

(1) Apply the specified brake fluid onto the O-ring, and securely install it onto the position of the clutch damper indicated in the illustration.

Specified brake fluid:
SAE J1703 (DOT3)

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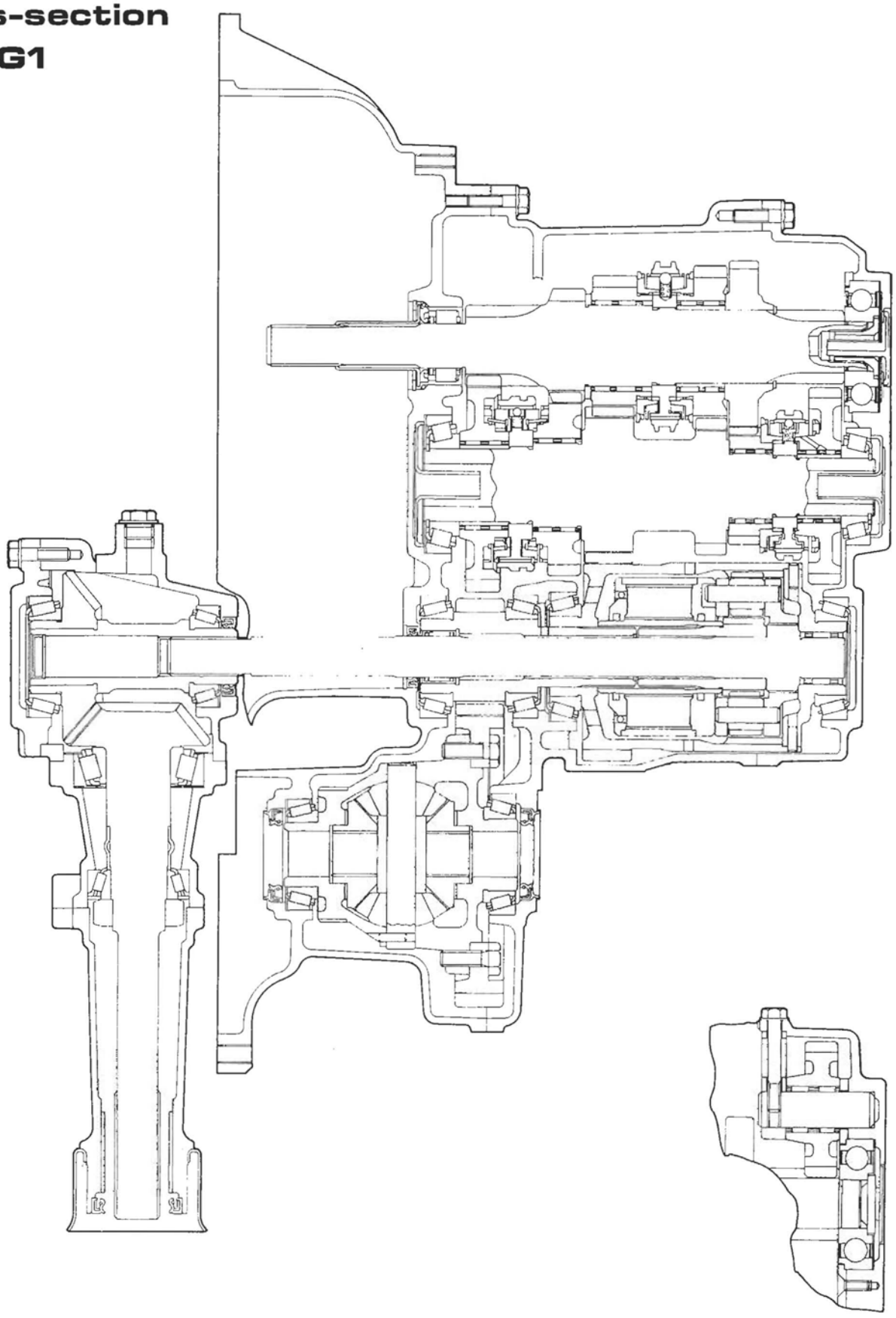
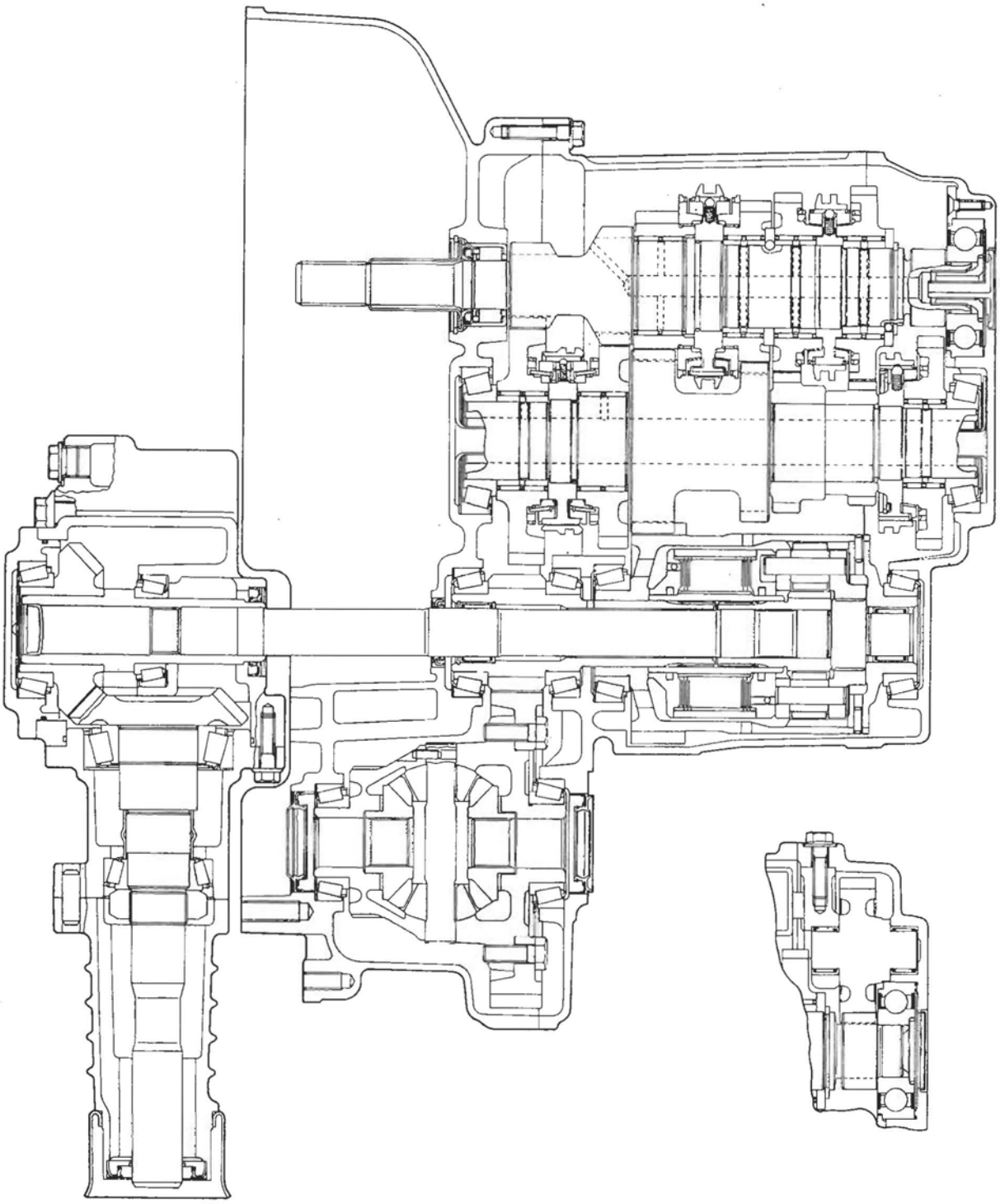
Cross-section W5MG1



Cross-section
W6MG1



Transmission types

1991 Model Year

Transaxle model	Ratio set	Speedometer gear ratio	Final Drive	Chassis	Engine type
W5MG1-0-FNBR	A	27/36	3.972	Z15A, Z16A	6G72-DOHC T/C

1992 Model Year

Transaxle model	Ratio set	Speedometer gear ratio	Final Drive	Chassis	Engine type
W5MG1-1-FNCR	A	27/36	3.972	Z15A, Z16A	6G72-DOHC T/C

1993 Model Year

Transaxle model	Ratio set	Speedometer gear ratio	Final Drive	Chassis	Engine type
W5MG1-2-FNCR	A	27/36	3.972	Z15A, Z16A	6G72-DOHC T/C

1994+ Model Year
Asian Market

Transaxle model	Ratio set	Speedometer gear ratio	Final Drive	Chassis	Engine type
W6MG1-0-GNCR	B	28/36	4.155	Z15A, Z16A	6G72-DOHC T/C

1994+ Model Year
North American Market

Transaxle model	Ratio set	Speedometer gear ratio	Final Drive	Chassis	Engine type
W6MG1-0-FNBR	B	28/36	3.869	Z15A, Z16A	6G72-DOHC T/C

Gear ratio sets

	A	B
1st Gear	3.071	3.266
2nd Gear	1.739	1.904
3rd Gear	1.103	1.241
4th Gear	0.823	0.918
5th Gear	0.659	0.733
6th Gear	NA	0.589
Reverse	3.076	3.153
Transfer Case	0.814	0.958

Maintenance Standards

Item	Standard Value in mm	Model
Input shaft bearing end play	0.02 - 0.05	——
Intermediate shaft preload	0.15 - 0.25	W5MG1
	0.20 - 0.30	W6MG1
Center differential preload	0.10 - 0.20	W5MG1
	0.15 - 0.20	W6MG1
Front output shaft preload	0.15 - 0.25	W5MG1
	0.10 - 0.15	W6MG1
Front differential preload	0.15 - 0.25	W5MG1
	0.15 - 0.20	W6MG1

Sealants

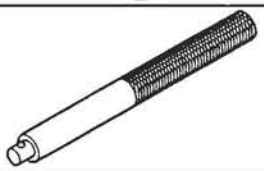
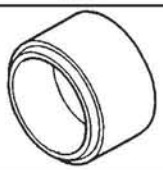
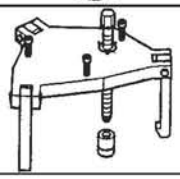
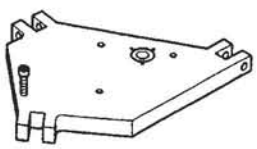
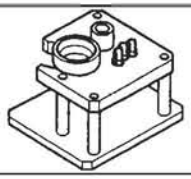
Item	Type
Input shaft lock bolt	Loc-tite #242
Rear cover to center case installation bolt	
Stopper plate installation bolt	
Center case to clutch housing installation bolt	
Shift shaft to clutch housing installation bolt	
Shift shaft guide bolt	
Select lever installation bolt	
Poppet cover installation bolt	
Reverse idler gear shaft bolt	
Reverse shift damper	
Mating surface of rear cover and center case	Loc-tite #17430 or Mitsubishi Geunine Sealant MD997740
Mating surface of center case and clutch housing	
Mating surface of clutch housing and shift shaft	
Mating surface of poppet cover and rear cover	

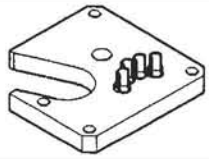
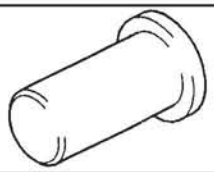
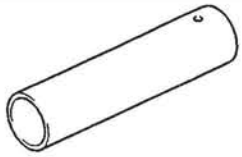
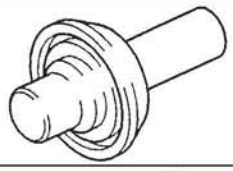
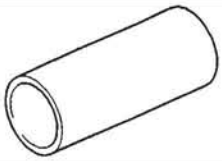
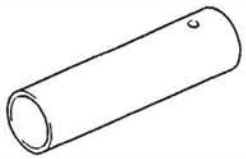
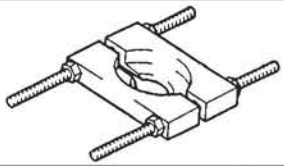
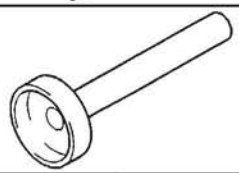
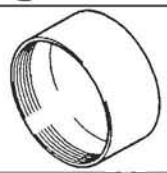
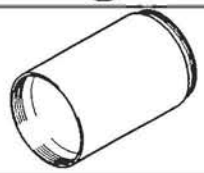
Lubricants

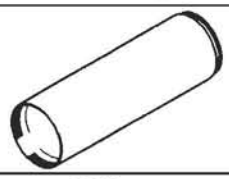
Item	Type
Spline section of center output shaft and mating sleeve of transfer case, lip section of all oil seals.	Molykote TA#1 or #2
Synchronizer friction surfaces and mating surfaces	API Classification GL-4 or higher Viscosity 75W-90 to 75W-85W

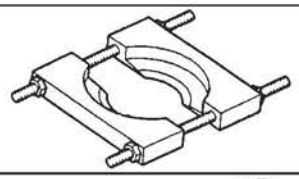
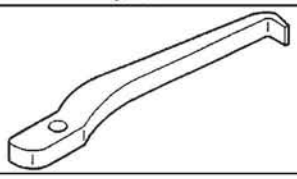
Name	Thickness in mm
Input shaft end bearing adjustment spacers	0.15 0.20 0.30 0.40 0.50
Intermediate shaft preload adjustment spacers	0.20 0.25 0.30 0.50
Center differential preload adjustment spacers	0.20 0.25 0.30 0.50
Front output shaft preload adjustment spacers	0.10 0.15 0.20 0.50 1.00
Front differential preload adjustment spacers	0.10 0.15 0.20 0.30 0.50

Item	Torque	Remark
Input shaft bearing retainer bolt	7 ft.lbs 10 Nm	_____
Reverse gear shaft bolt	18 ft.lbs 25 Nm	W5MG1
Reverse gear carrier bolt	18 ft.lbs 25 Nm	W6MG1
Input shaft lock bolt	70 ft.lbs 95 Nm	_____
Stopper plate bolt	7 ft.lbs 10 Nm	_____
Center case to clutch housing bolt	18 ft.lbs 25 Nm	_____
Center case to rear cover bolt	18 ft.lbs 25 Nm	_____
Shift shaft bolt	7 ft.lbs 10 Nm	_____
Shift shaft guide bolt	17 ft.lbs 23 Nm	W5MG1
Detent	22 ft.lbs 30 Nm	W6MG1
Guide bolt	15 ft.lbs 20 Nm	W6MG1
Oil tank bolt	5 ft.lbs 7 Nm	W6MG1
Reverse shift damper	24 ft.lbs 33 Nm	W6MG1
Select lever bolt	18 ft.lbs 25 Nm	_____
Poppet cover bolt	7 ft.lbs 10 Nm	_____
Reverse light switch	24 ft.lbs 32 Nm	_____
Speedometer gear bolt	3 ft.lbs 4 Nm	_____
Transfer case bolt	63 ft.lbs 86 Nm	_____
Transmission bracket mounting bolt	52 ft.lbs 70 Nm	_____
Shift cable bracket bolt	14 ft.lbs 19 Nm	_____
Oil fill plug	5.5 ft.lbs 7.5 Nm	_____

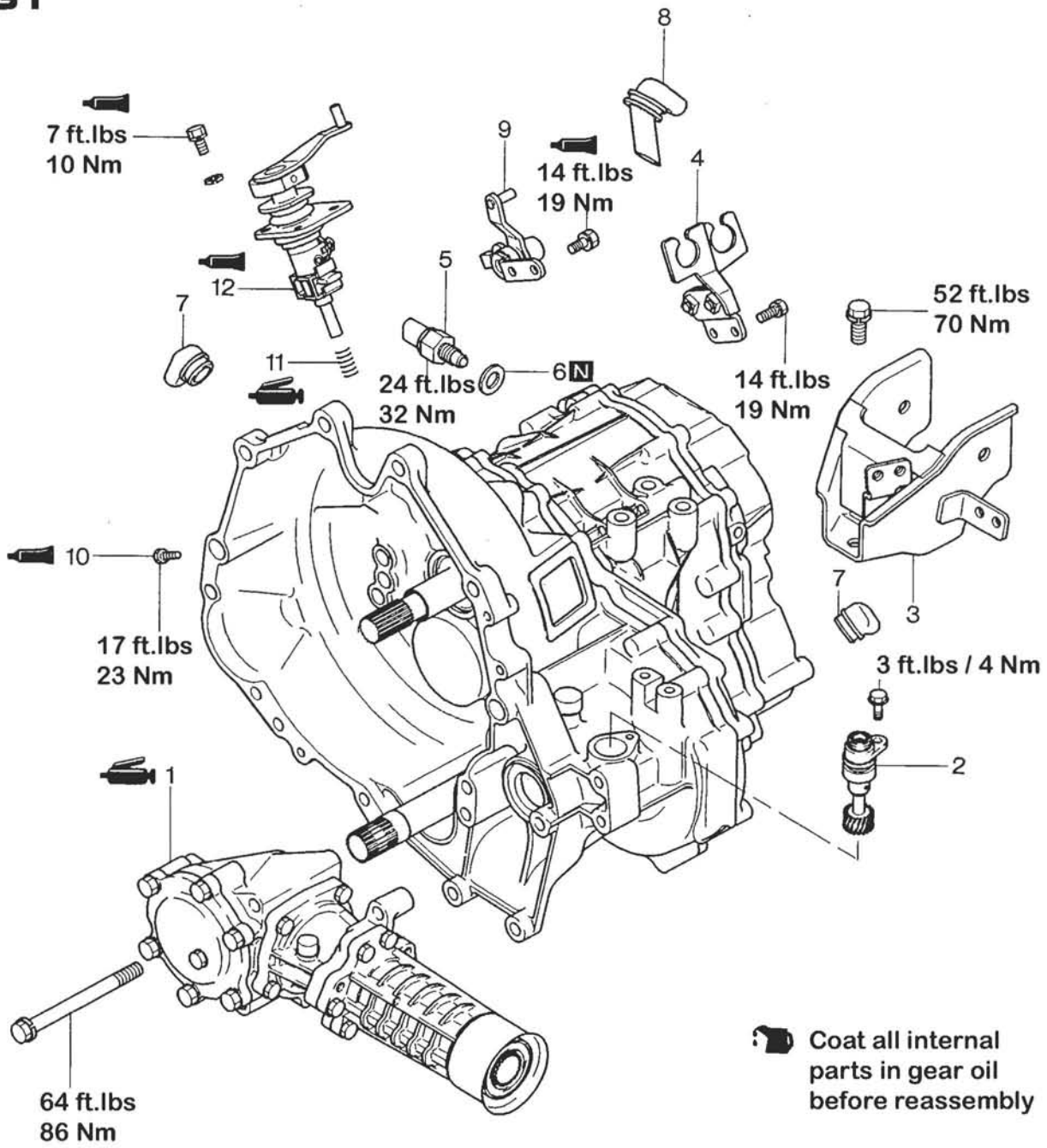
Tool	Number	Name	Usage
	MB990934	Installer adapter	Installation of outer bearing race
	MB990936	Installer adapter	Installation of outer bearing race
	MB990037	Installer adapter	Installation of outer bearing race
	**MB990938**	Handle	For use with installer adapters
	MB991550	Outer bearing race installer	Installation of outer bearing race
	**MB991551**	Outer bearing race installer	Installation of outer bearing race
	MB991577	Outer bearing race installer	Installation of outer bearing race
	**MB991578**	Rear cover puller ass'y (5 M/T)	Removal of rear cover (W5MG1, W6MG1)
	**MB991580**	Rear cover puller adapter (6 M/T)	Removal of rear cover (W6MG1)
	**MB991589**	Working base ass'y (5 M/T)	Removal of input shaft lock bolt and installation of rear cover (W5MG1, W6MG1)

Tool	Number	Name	Usage
	**MB991591**	Working base adapter set	Removal of input shaft lock bolt (W5MG1, W6MG1) Installation of rear cover (W5MG1, W6MG1)
	**MD998304**	Oil seal installer	Installation of transfer case tail housing oil seal
	**MD998320**	Oil seal installer	Installation of output shaft oil seal
	**MD998325**	Differential oil seal installer	Installation of axle shaft oil seal
	**MD998349**	Oil seal installer	Removal and installation of input shaft front bearing
	**MD998369**	Oil seal installer	Installation of needle bearings
	**MD998801**	Bearing remover	Removal of taper bearings
	**MD998803**	Differential oil seal installer	Installation of output shaft seal
	**MD998812**	Installer cap	Use with installer adapter
	**MD998813**	Installer - 100	Use with installer cap and adapter

Tool	Number	Name	Usage
	**MD998814**	Installer - 200	Use with installer cap and adapter
	MD998820	Installer adapter - 42	Installation of bearing sleeve and inner bearing race
	MD998821	Installer adapter - 44	Installation of 5-R synchronizer hub
	MD998822	Installer adapter - 46	Installation of bearing sleeve and inner bearing race
	MD998823	Installer adapter - 48	Installation of reverse synchronizer hub and inner bearing race
	MD998824	Installer adapter - 50	Installation of 3-4 synchronizer hub, bearing sleeve, 5th gear, and oil seal
	MD998825	Installer adapter - 52	Installation of bearing sleeve and inner bearing race
	MD998826	Installer adapter - 54	Installation of bearing sleeve, 5-6 synchronizer hub, 1-2 synchronizer hub
	MD998827	Installer adapter - 56	Installation of spacer ring and inner bearing race
	MD998829	Installer adapter - 60	Installation of 3-4 synchronizer ring

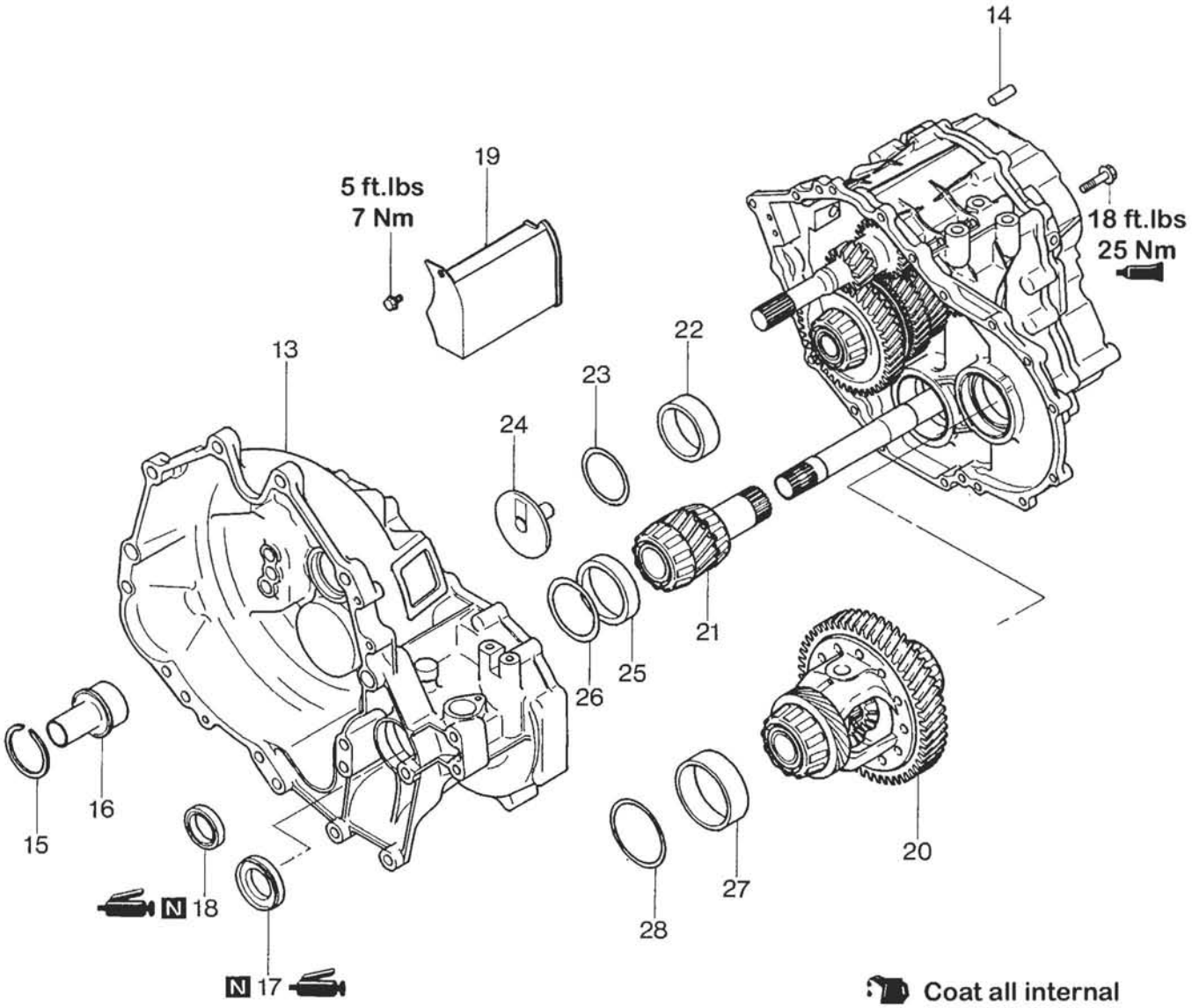
Tool	Number	Name	Usage
	**MD998917**	Bearing remover	Removal of taper bearings
	**MD999566**	Claw	Removal of outer bearing races

Disassembly / Reassembly W5MG1



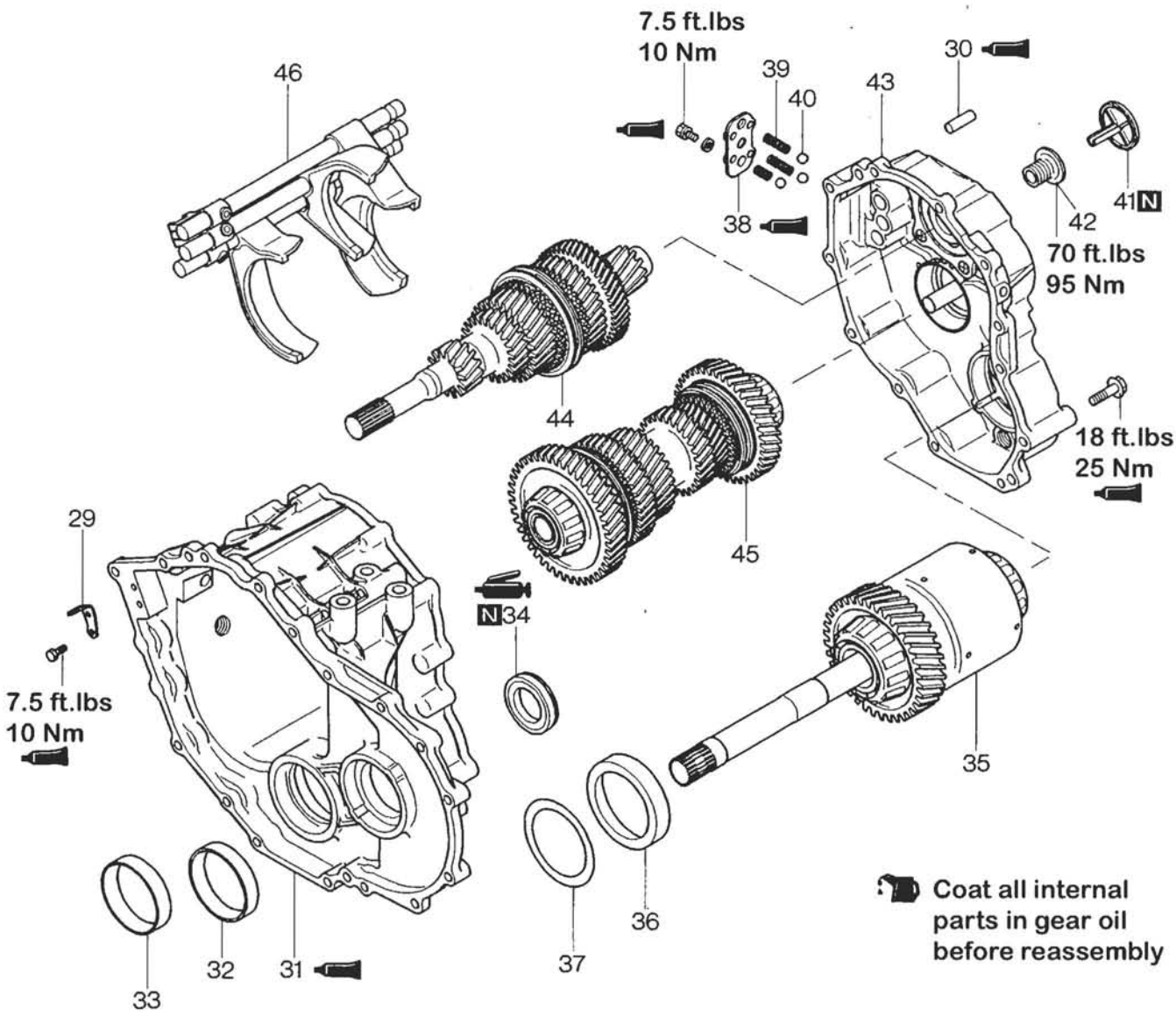
Disassembly Procedure

- ◆AA◆ 1. Transfer case
- 2. Speedometer gear
- 3. Transmission mount
- 4. Gearshift cable bracket
- 5. Reverse light switch
- 6. Gasket
- ◆Z◆ 7. Vent tube A
- ◆Z◆ 8. Vent tube B
- ◆Y◆ 9. Gear select lever
- ◆V◆ 10. Guide bolt
- 11. Spring
- ◇A◇ ◆T◆ 12. Shift shaft



Disassembly Procedure

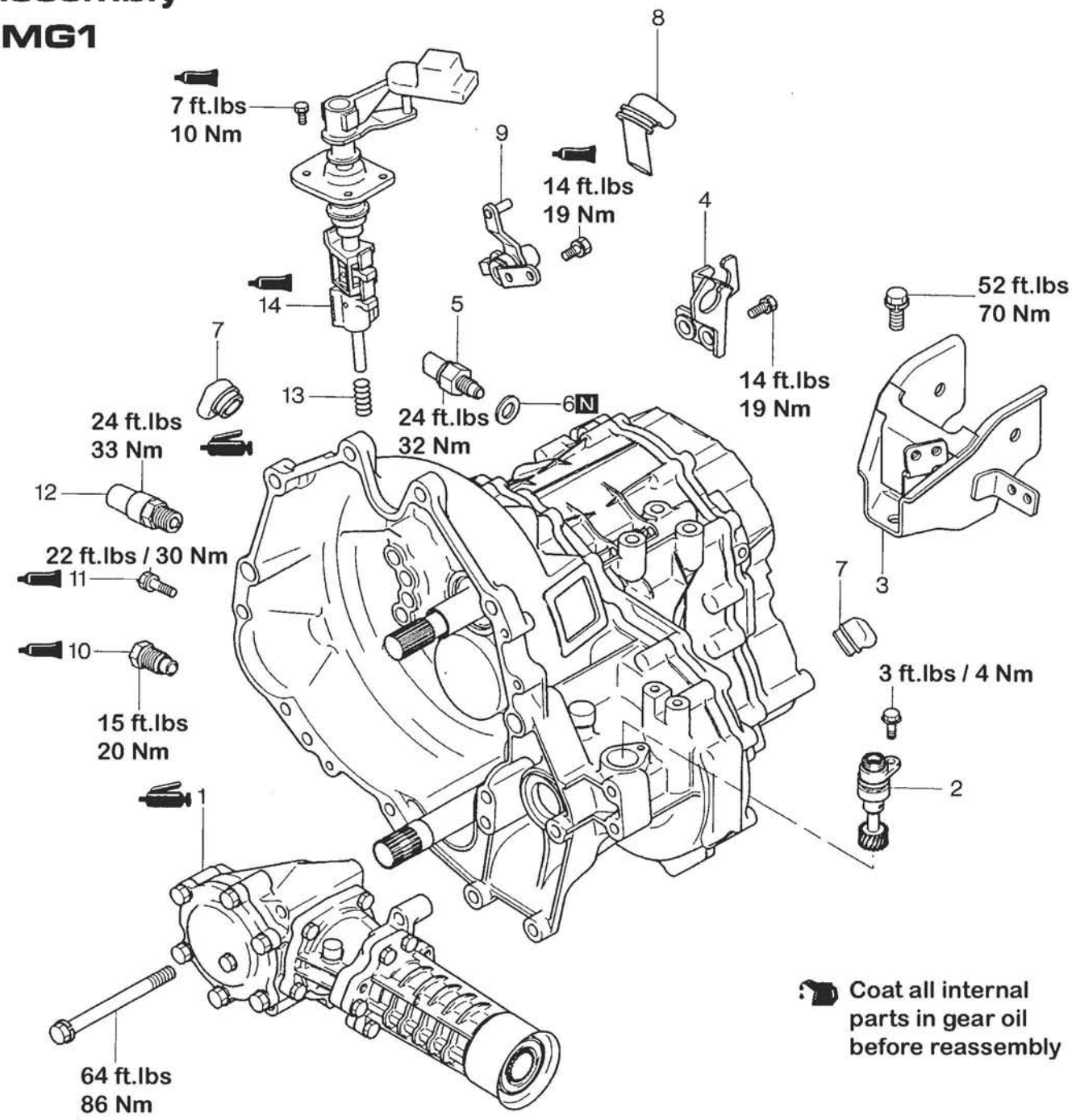
- ⬥S⬥ 13. Clutch housing
- 14. Dowel
- 15. Snap ring
- ⬦C⬦⬥R⬥ 16. Input shaft bearing
- ⬥Q⬥ 17. Oil seal
- ⬥P⬥ 18. Oil seal
- 19. Oil tank
- 20. Front differential
- 21. Front output shaft
- ⬦D⬦⬥O⬥ 22. Outer bearing race
- ⬥E⬥ 23. Spacer
- ⬥N⬥ 24. Oil guide
- ⬦D⬦⬥M⬥ 25. Outer bearing race
- ⬥E⬥ 26. Spacer
- ⬦D⬦⬥L⬥ 27. Outer bearing race
- ⬥E⬥ 28. Spacer



Disassembly Procedure

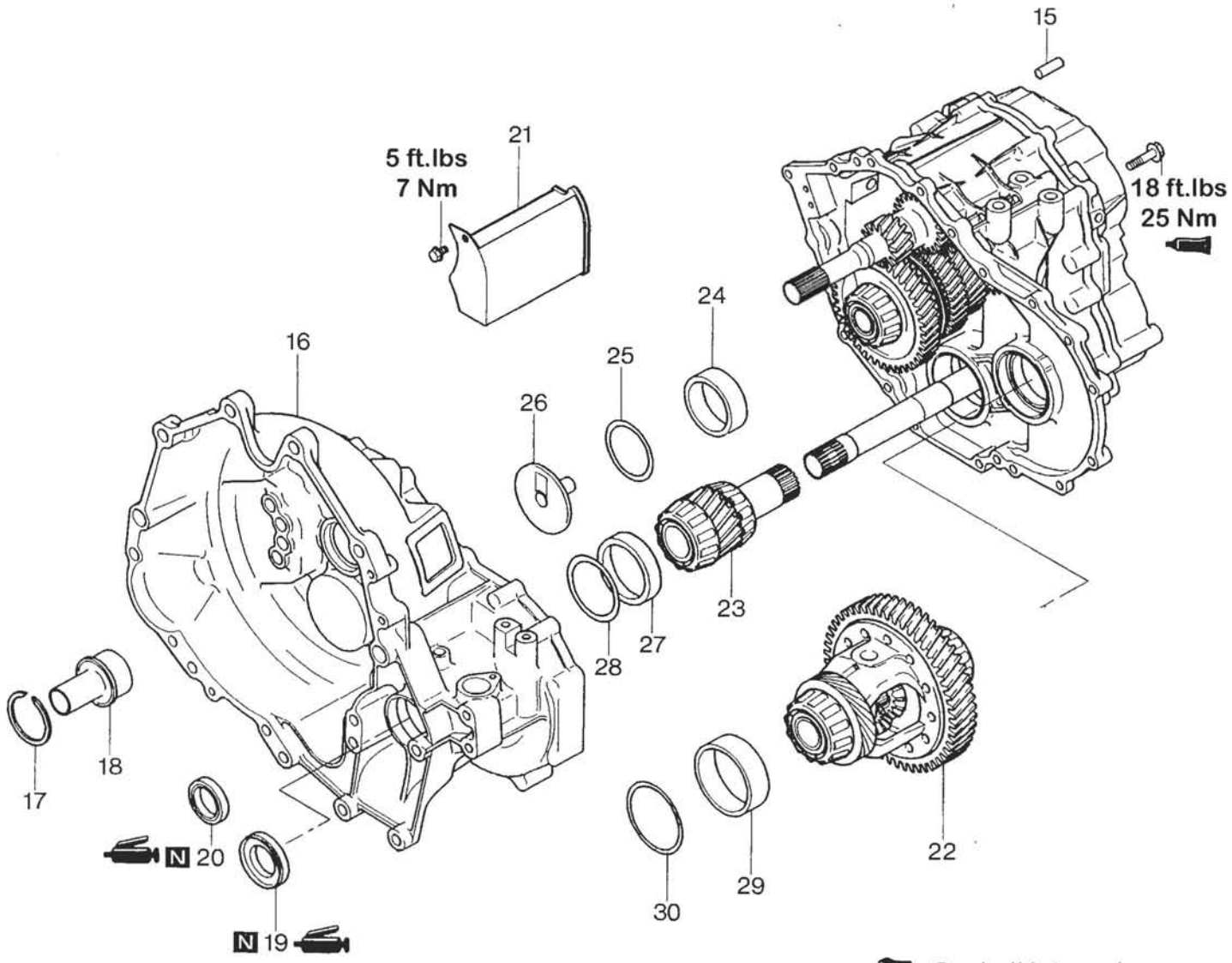
- ■K■ 29. Stopper plate
- ◇E◇ 30. Dowel
- ■J■ 31. Center case
- ■I■ 32. Outer bearing race
- ■H■ 33. Outer bearing race
- ■G■ 34. Oil seal
- 35. Center differential
- ■F■ 36. Outer bearing race
- ■E■ 37. Spacer
- ■D■ 38. Poppet cover
- 39. Spring
- 40. Ball
- ◇F◇■C■ 41. Real seal cap
- ◇G◇■B■ 42. Input shaft lock bolt
- ◇H◇■A■ 43. Rear cover
- 44. Input shaft
- 45. Intermediate shaft
- 46. Shift forks and rails

Disassembly/ Reassembly W6MG1



Disassembly procedure

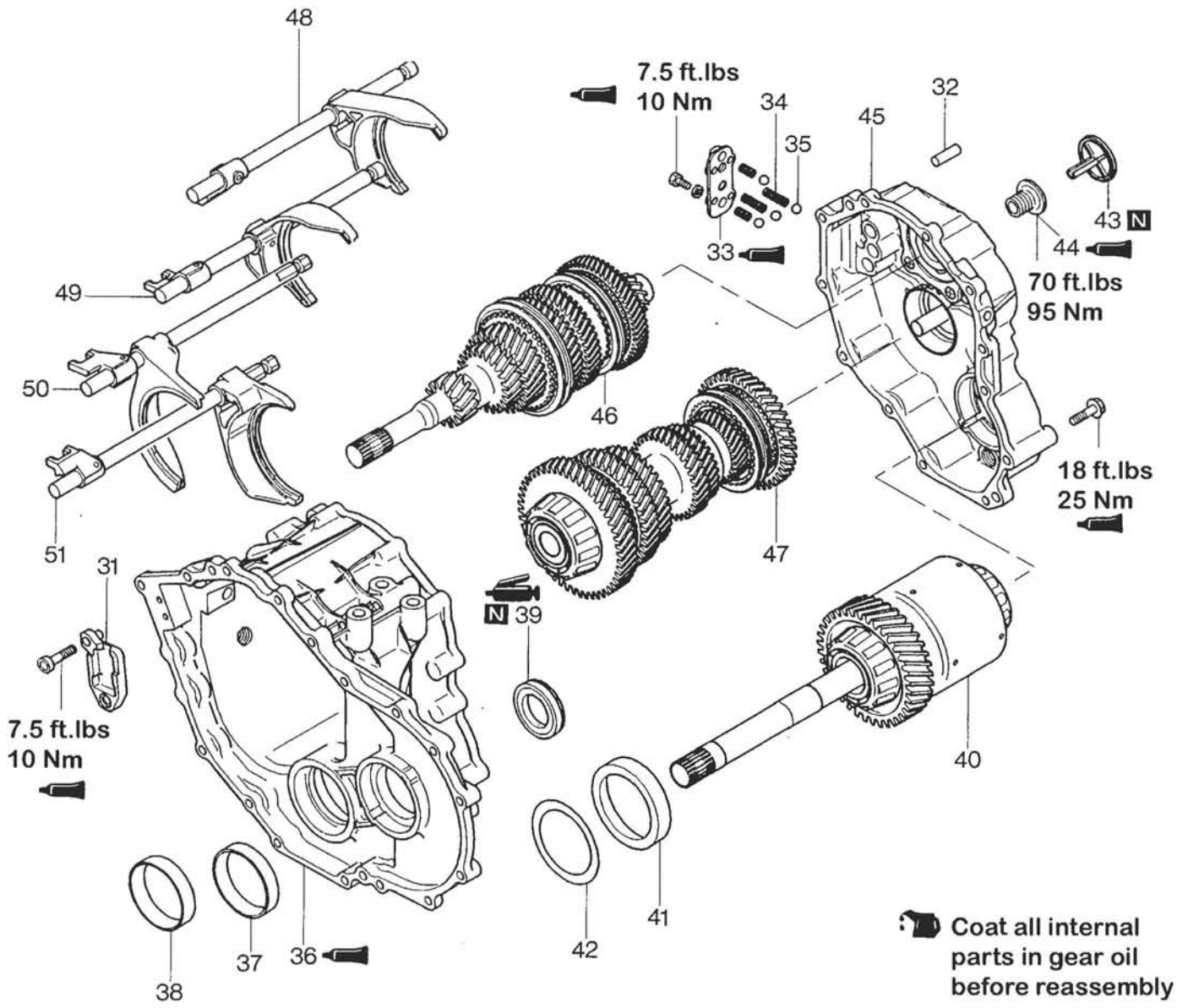
- ▮AA▮ 1. Transfer case
- 2. Speedometer gear
- 3. Transmission mount
- 4. Gearshift cable bracket
- 5. Reverse light switch
- 6. Gasket
- ▮Z▮ 7. Vent tube A
- ▮Z▮ 8. Vent tube B
- ▮Y▮ 9. Gear select lever
- ▮X▮ 10. Shift detent
- ▮W▮ 11. Guide bolt
- ▮U▮ 12. Reverse shift detent
- 13. Spring
- ⬡A⬡▮T▮ 14. Shift shaft



Coat all internal parts in gear oil before reassembly

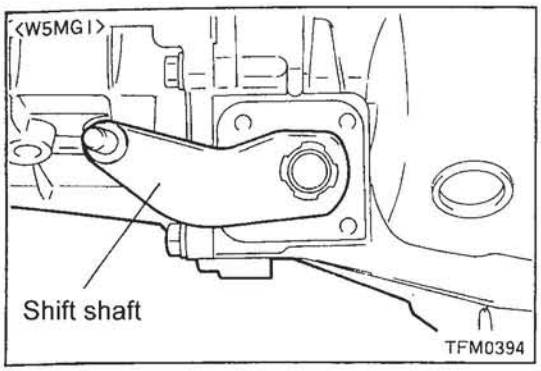
Disassembly procedure

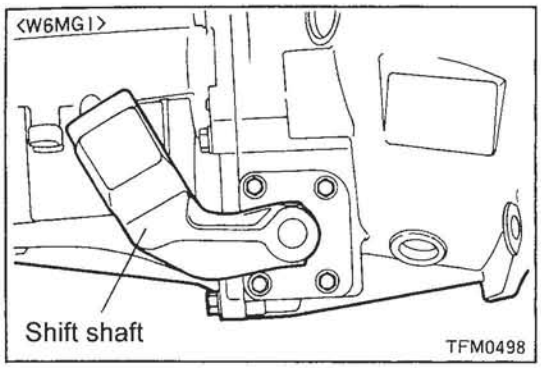
- ◇B◇ 15. Dowel
- ■S■ 16. Clutch housing
- 17. Snap ring
- ◇C◇■R■ 18. Input shaft bearing
- ■Q■ 19. Oil seal
- ■P■ 20. Oil seal
- 21. Oil tank
- 22. Front differential
- 23. Front output shaft
- ◇D◇■O■ 24. Outer bearing race
- ■E■ 25. Spacer
- ■N■ 26. Oil guide
- ◇D◇■M■ 27. Outer bearing race
- ■E■ 28. Spacer
- ◇D◇■L■ 29. Outer bearing race
- ■E■ 30. Spacer



Disassembly Procedure

- ⬢K⬢ 31. Stopper plate
- ⬡E⬡ 32. Dowel
- ⬢D⬢ 33. Poppet cover
- 34. Spring
- 35. Ball
- ⬢J⬢ 36. Center case
- ⬢I⬢ 37. Outer bearing race
- ⬢H⬢ 38. Outer bearing race
- ⬢G⬢ 39. Oil seal
- 40. Center differential
- ⬢F⬢ 41. Outer bearing race
- ⬢E⬢ 42. Spacer
- ⬡F⬡⬢C⬢ 43. Rear seal cap
- ⬡G⬡⬢B⬢ 44. Input shaft lock bolt
- ⬡H⬡⬢A⬢ 45. Rear cover
- 46. Input shaft
- 47. Intermediate shaft
- 48. 5-6 shift fork and rail
- 49. 3-4 shift fork and rail
- 50. 1-2 shift fork and rail
- 51. Reverse shift fork and rail

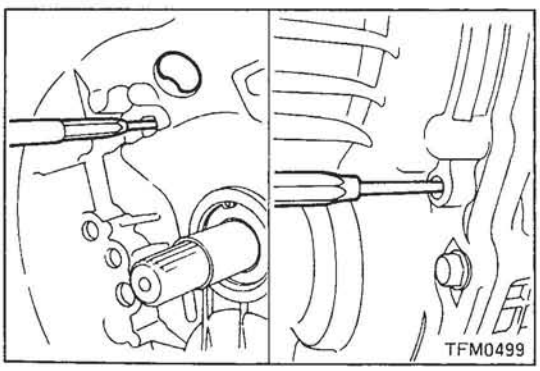




Disassembly service points

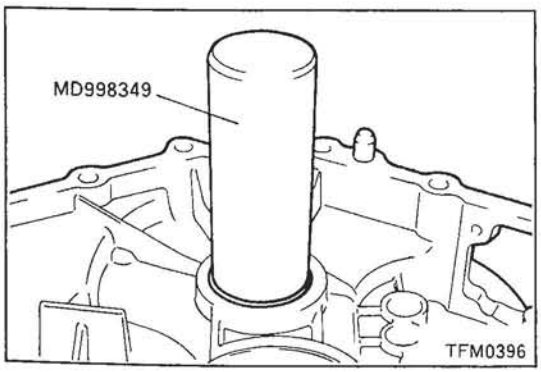
◇A◇ Removal of shift shaft

(1) Place the shift shaft in the neutral position and pull to remove

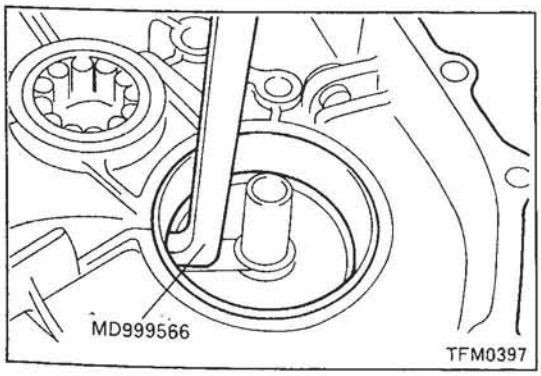


◇B◇ Removal of dowel pin

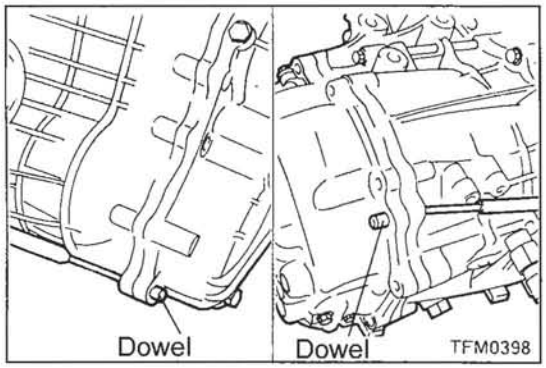
(1) The dowel pin is driven out in the direction illustrated



◇C◇ Removal of input shaft front bearing

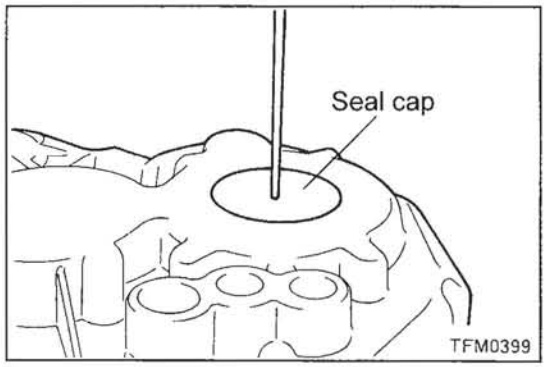


◇D◇ Removal of bearing outer race



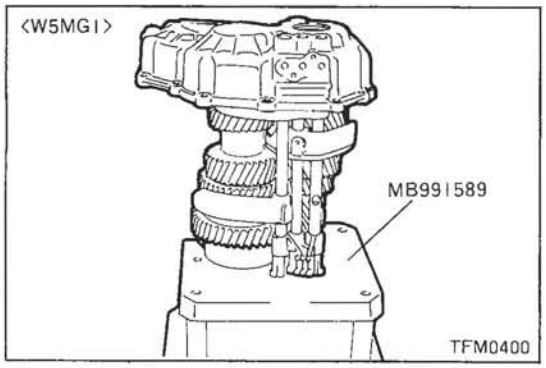
⇨E⇦ Removal of dowel pin

(1) The dowel pin is driven out in the direction illustrated



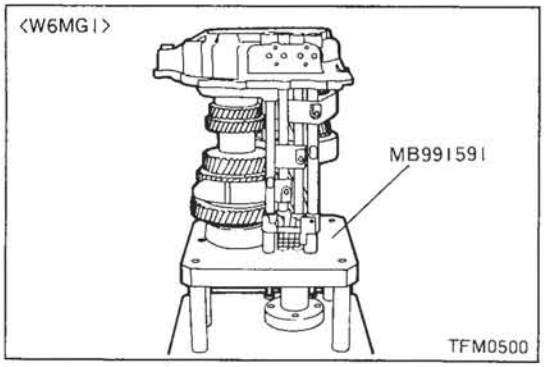
⇨F⇦ Removal of input shaft rear seal cap

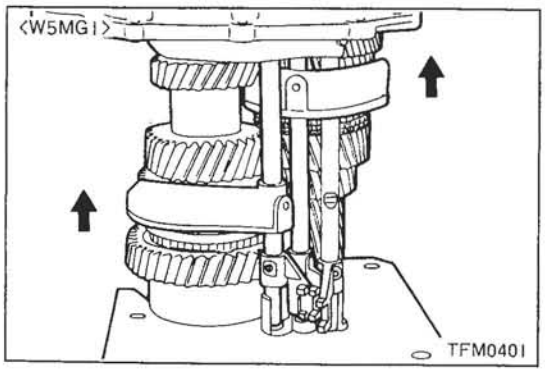
(1) Drive a nail or similar pointed object into seal cap, and pull to remove.



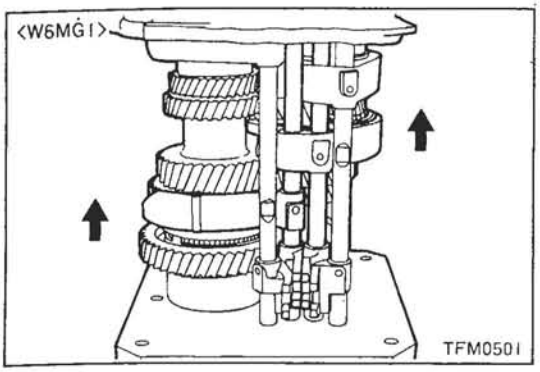
⇨G⇦ Removal of input shaft lock bolt

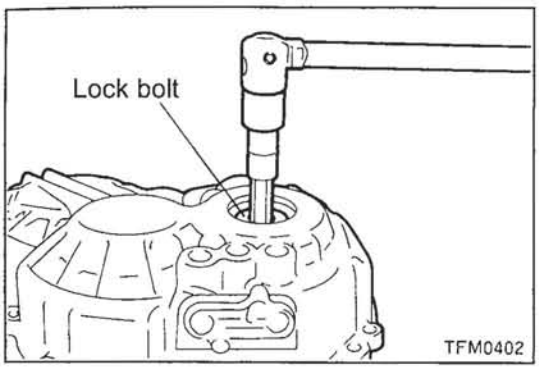
(1) Set the rear cover and shaft assembly into the special tool



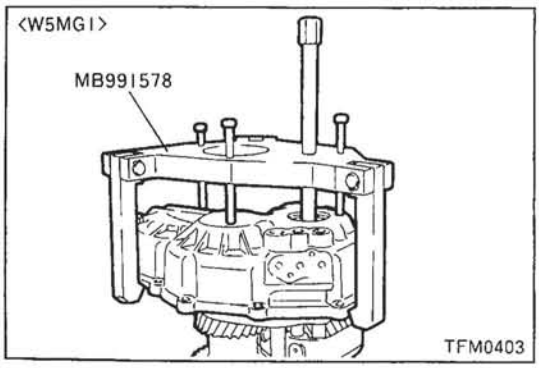


(2) Shift both forks in the direction shown in the illustration. This will lock the shafts so that the input shaft lock bolt can be removed.

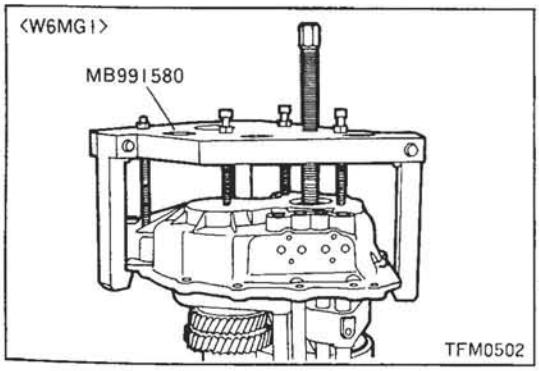


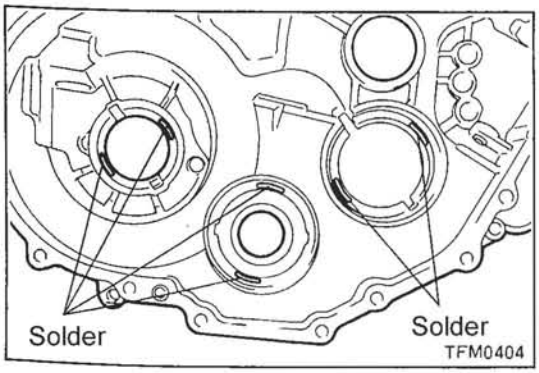


(3) Lock bolt is removed



⇩H⇩ Removal of rear cover

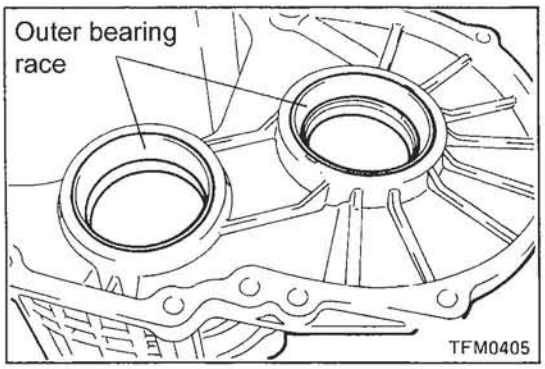




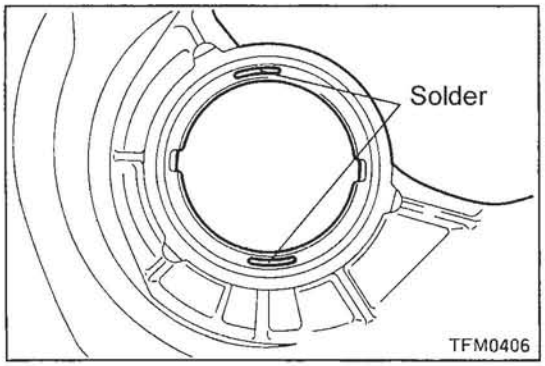
Adjustment before assembly

Selection of spacers for adjustment

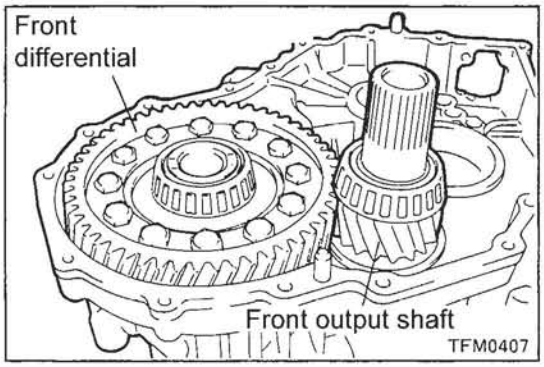
(1) Place solder (length approximately 10 mm and diameter approximately 1.6mm) into positions shown in illustration, then install outer bearing race.



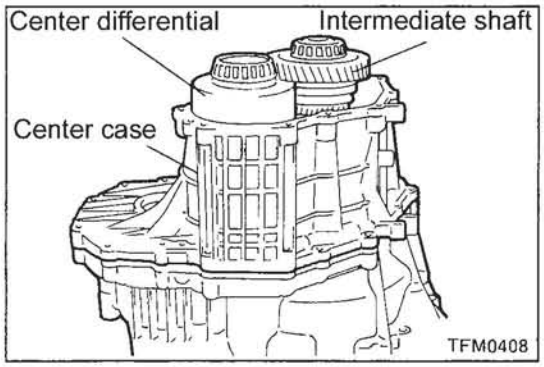
(2) Install outer bearing races into the transmission case in the positions shown in the illustration



(3) Place solder (length approximately 10 mm and diameter approximately 1.6mm) into positions shown in illustration, then install outer bearing race.



(4) The front output shaft and front differential are installed on the clutch housing.



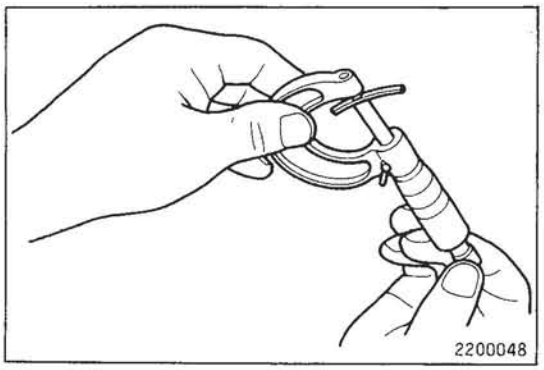
(5) The center differential, intermediate shaft and center case are installed at the same time.

(6)The rear cover is installed and the bolts are tightened to the specifed torque.

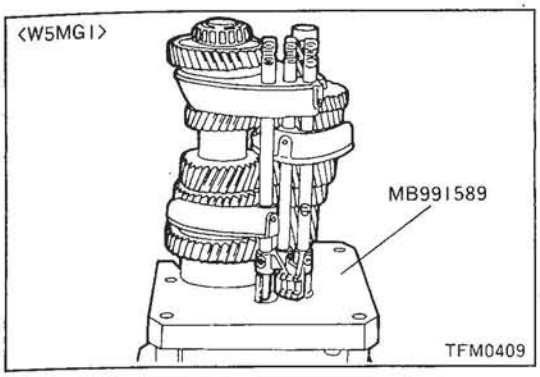
(7) Remove each outer race and remove the solder. Measure the thickness of the crushed solder with a micrometer and select and install a spacer of thickness that gives standard preload.

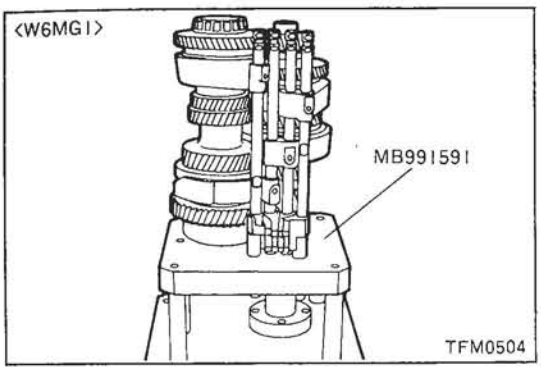
Standard preload values:

Intermediate shaft:	**0.15 mm - 0.25 mm (W5MG1)**
	0.20 mm - 0.30 mm (W6MG1)
Center differential:	**0.10 mm - 0.20 mm (W5MG1)**
	0.15 mm - 0.20 mm (W6MG1)
Front output shaft:	**0.15 mm - 0.25 mm (W5MG1)**
	0.10 mm - 0.15 mm (W6MG1)
Front differential:	**0.15 mm - 0.25 mm (W5MG1)**
	0.15 mm - 0.20 mm (W6MG1)



(8) If the solder is not collapsed in step 6, select a solder with a thicker diameter and start over at step 1

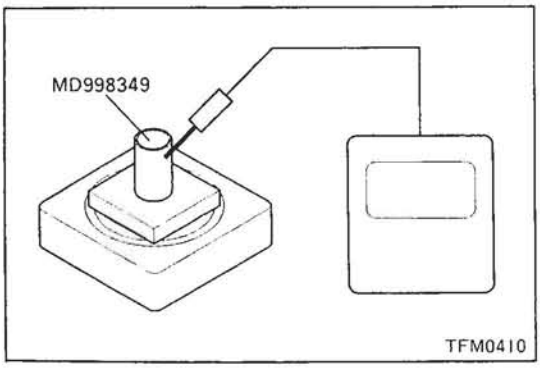




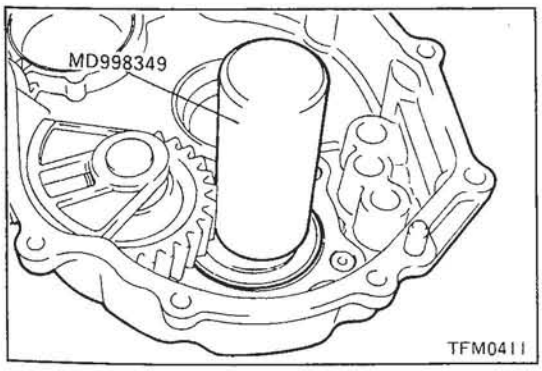
Service points for working base

◆A◆ Rear cover installation

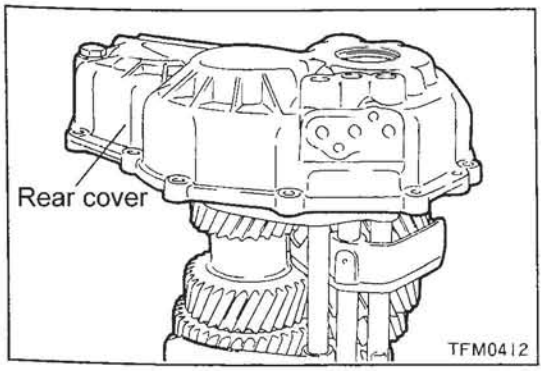
(1) Place the intermediate shaft, input shaft, shift forks and rails into the special tool.



(2) Using an electric heater or similar device, heat the special tool.
Heating temperature: 110 - 120°C (230 - 248°F)

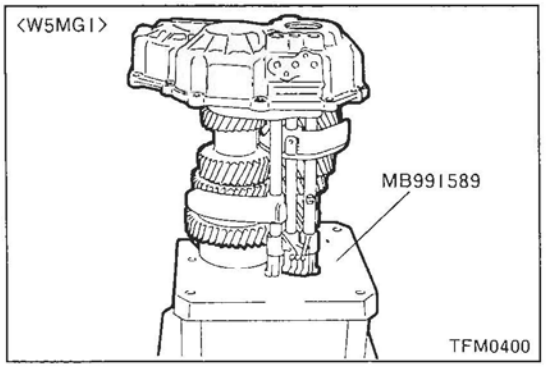


(3) The heated special tool is placed against the inner race section of the input shaft rear bearing in the rear cover for approximately 10 minutes.



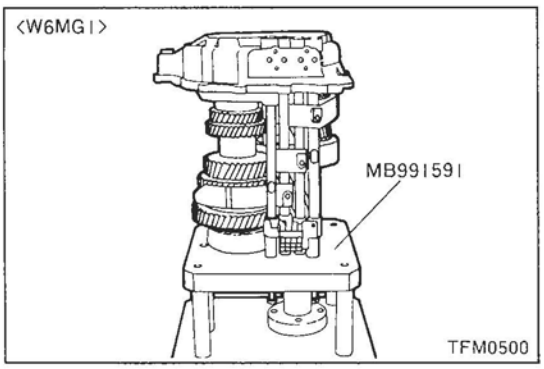
(4) The special tool is removed and the rear cover is installed.

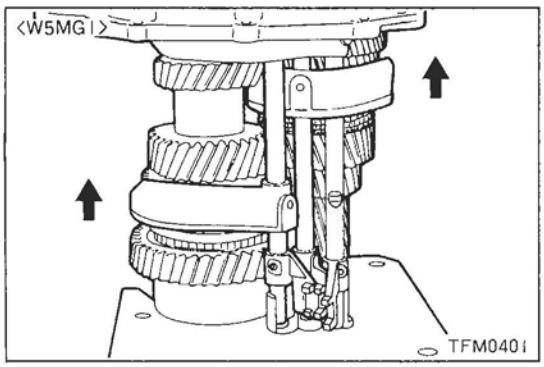
Note:
Do not touch the heated special tool with bare hands.



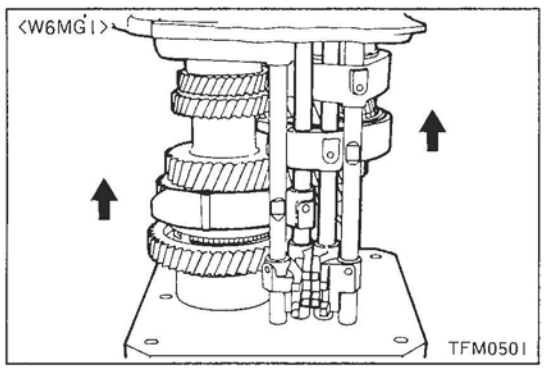
➧B➧ Installation of input shaft lock bolt

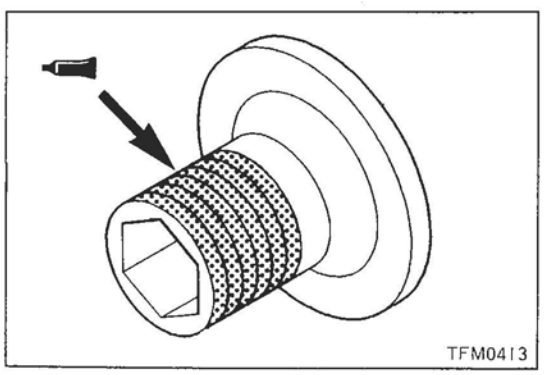
(1) The rear cover, input shaft and intermediate shaft are set into the special tool.





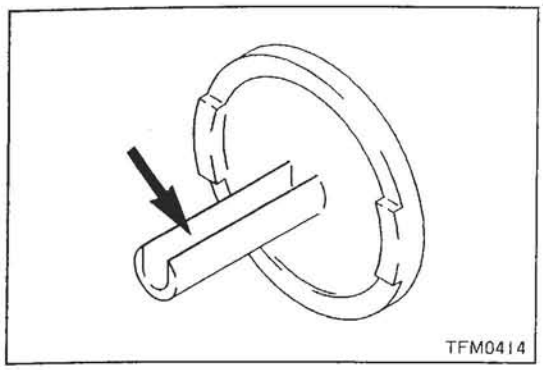
(2) Shift both forks in the direction shown in the illustration. This will lock the shafts so that the input shaft lock bolt can be installed.





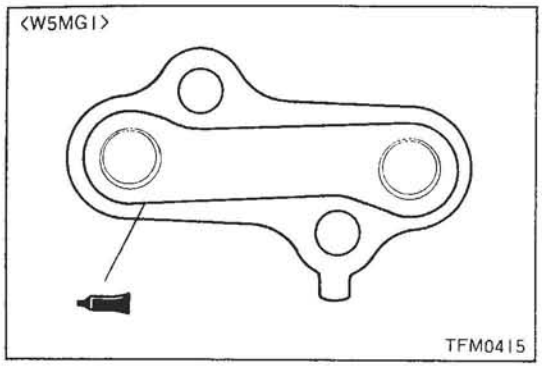
(3) Apply thread locking compound to the threads of the lock bolt and tighten to the specified torque.

Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



➧C➧ Installation of input shaft rear seal cap

(1) Install the seal cap with the groove facing upward. Tap the seal down flush with the rear cover.

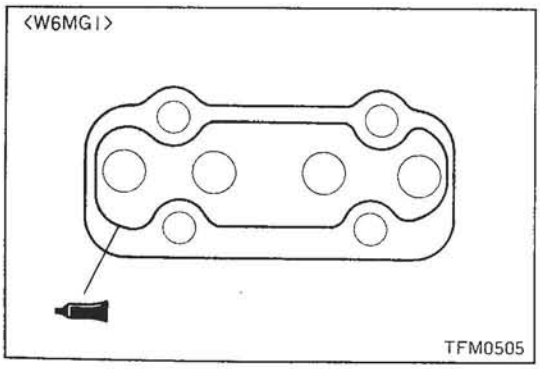


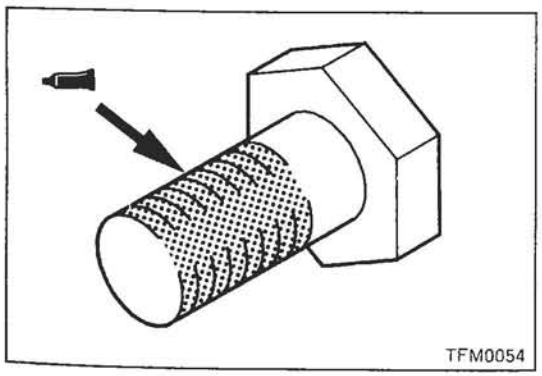
➧D➧ Installation of poppet cover

(1) Sealant is applied to the illustrated position on the poppet cover.

Note:
Brand: Mitsubishi Genuine Sealant, part number MD997740 or equivalent.

(2) Install the bolts in the poppet cover.



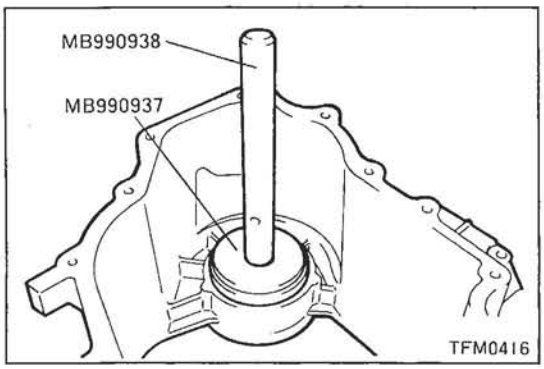


(3) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

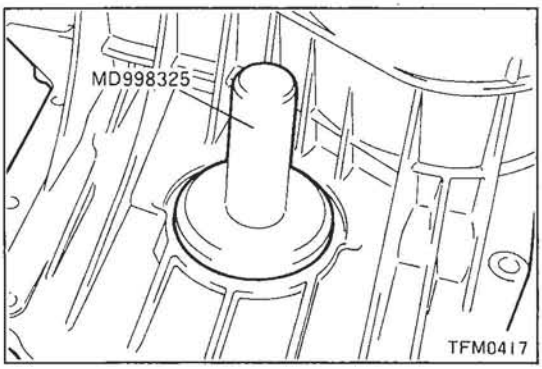
Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent

➧E➧ Installation of spacer

(1) Select and install the spacers in accordance with the results obtained in the section "Adjustment before assembly"



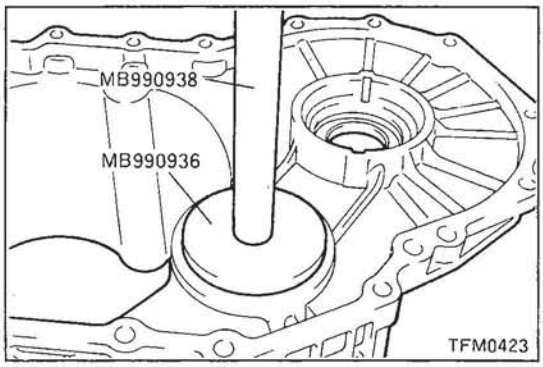
➧F➧ Installation of outer bearing race



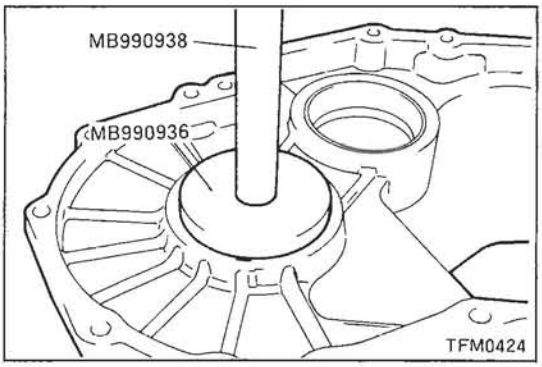
➧G➧ Installation of oil seal

(1) After installation of oil seal, fill the lip section with specified grease.

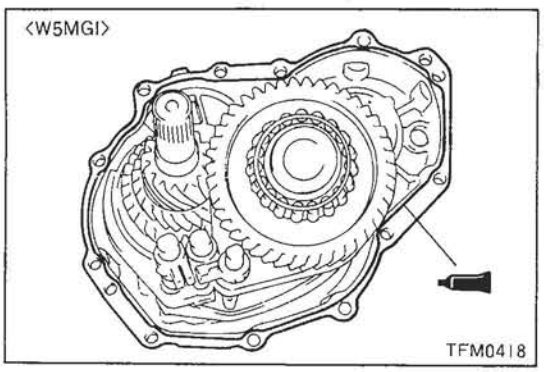
Specified grease:
Molykote TA #1 or #2



➧H➧ Installation of outer bearing race



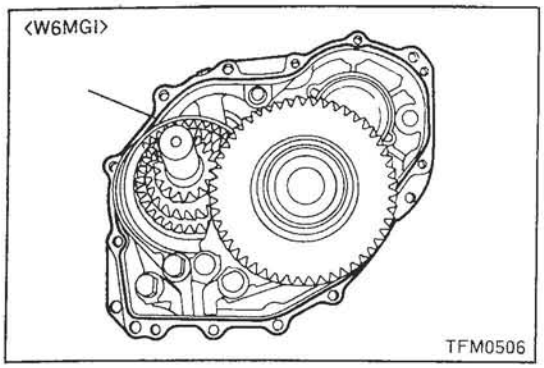
➧I➧ Installation of outer bearing race



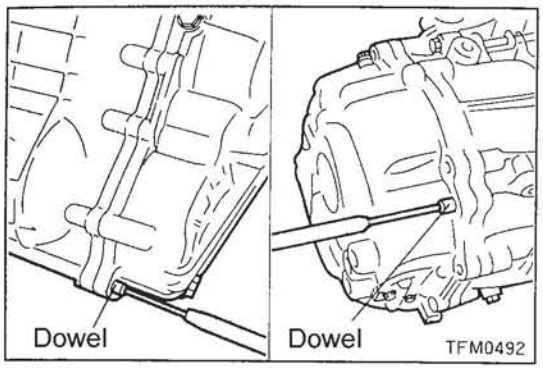
➧J➧ Installation of transmission case

(1) Apply sealant to the illustrated position on the rear cover.

Sealant
Brand: Loc-tite #17430 or Mitsubishi Genuine Sealant MD997740
Note:
Squeeze out sealant from tube uniformly without excess or discontinuity

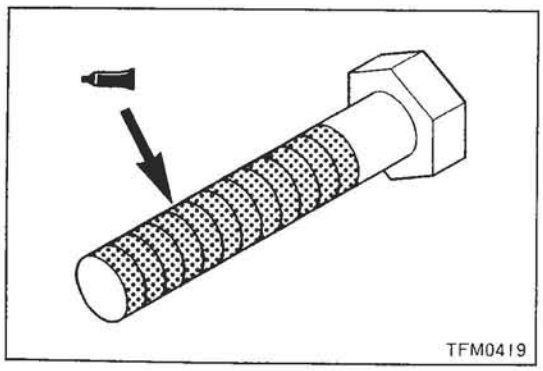


TFM0506



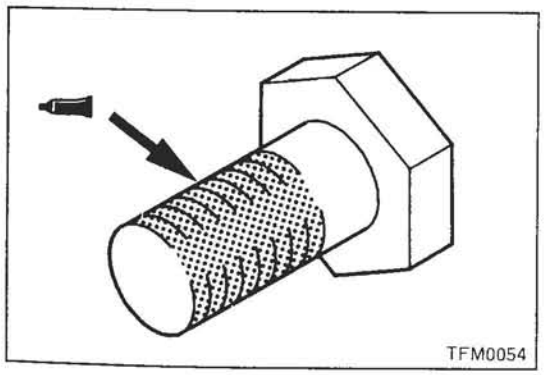
TFM0492

(3) The dowel pin is driven into place from the direction shown in the illustration.


TFM0419

(4) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent

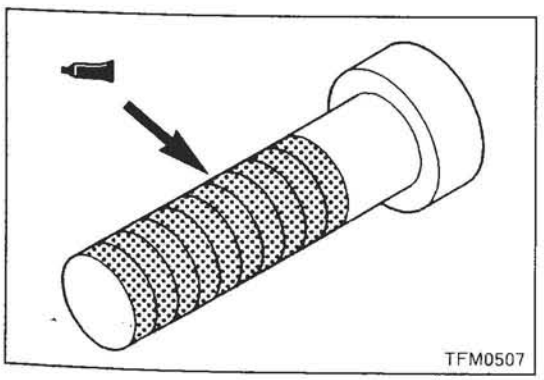

TFM0054

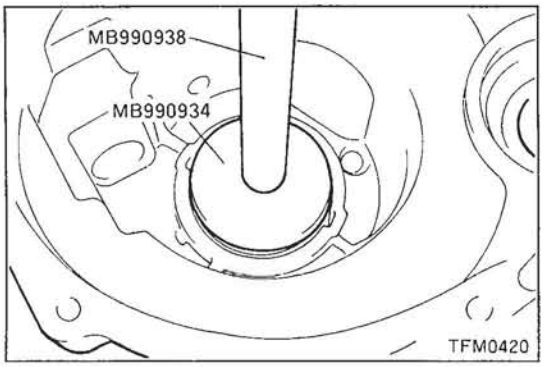
➧K➧ Installation of stopper plate

(1) Install the bolts into the stopper plate.

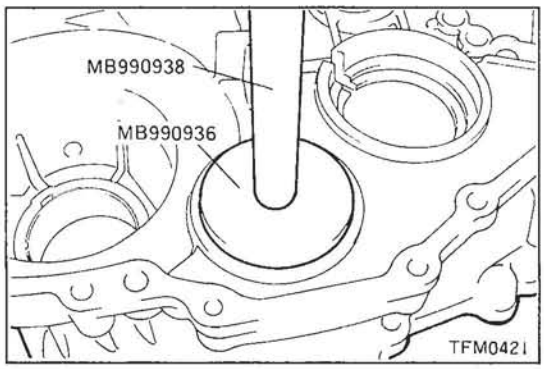
(2) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent

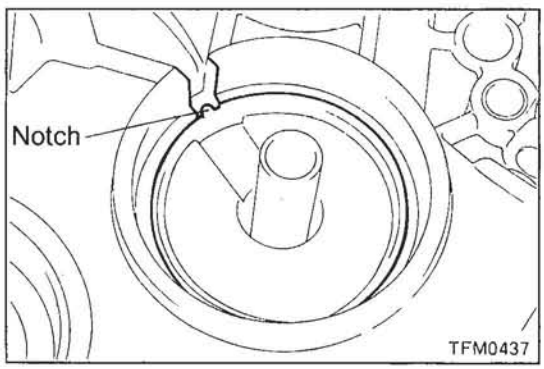

TFM0507



➧L➧ Installation of outer bearing race



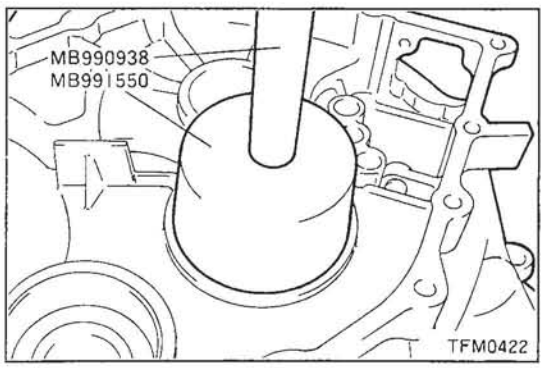
➧M➧ Installation of outer bearing race



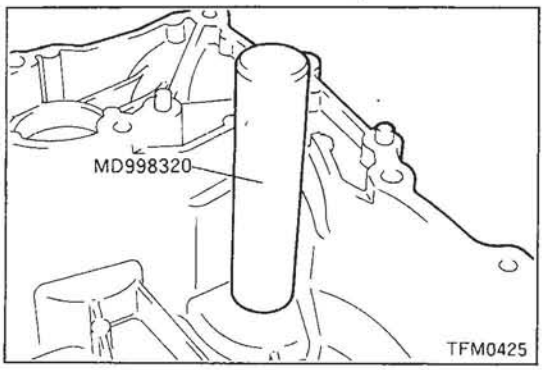
➧N➧ Installation of oil guide

(1) The notch in the oil guide is installed in the illustrated position.

Note:
If the oil guide is broken or damaged, replace it with a new one.



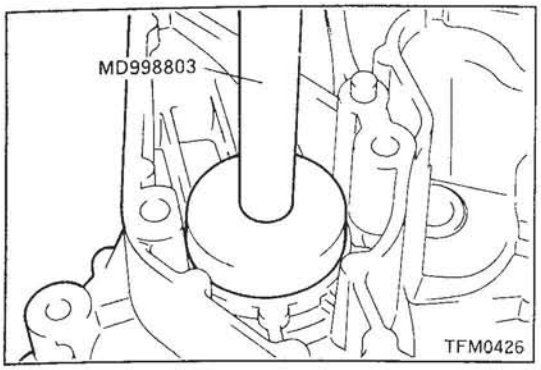
➧O➧ Installation of outer bearing race



➧P➧ Installation of oil seal

(1) After installation of oil seal, fill the lip section with specified grease.

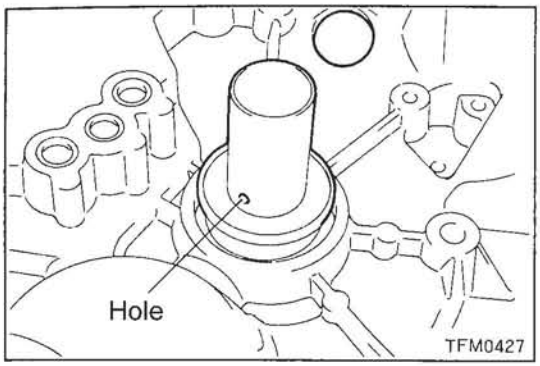
Specified grease:
Molykote TA #1 or #2



➧Q➧ Installation of oil seal

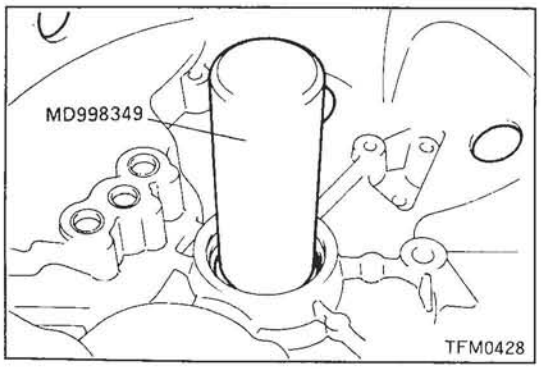
(1) After installation of oil seal, fill the lip section with specified grease.

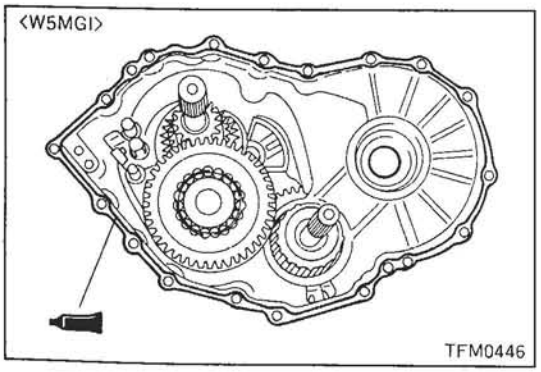
Specified grease:
Molykote TA #1 or #2



➧R➧ Installation of input shaft front bearing

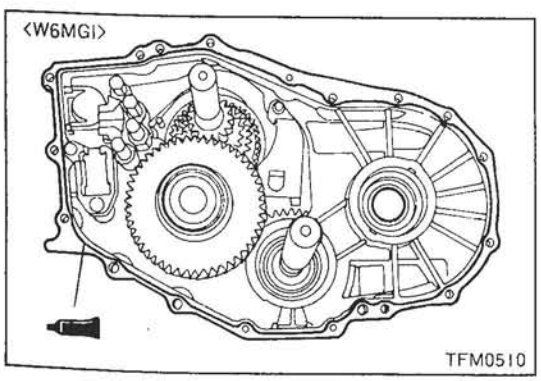
(1) Install the bearing with the hole facing downward





➧S➧ Installation of clutch housing

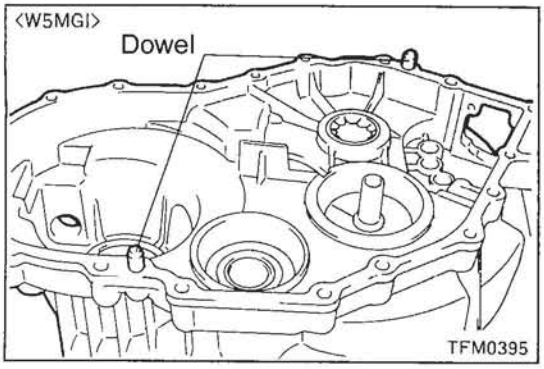
(1) Apply sealant to the illustrated position on the rear cover.
Sealant
Brand: Loc-tite #17430 or Mitsubishi Genuine Sealant MD997740
Note:
Squeeze out sealant from tube uniformly without excess or discontinuity



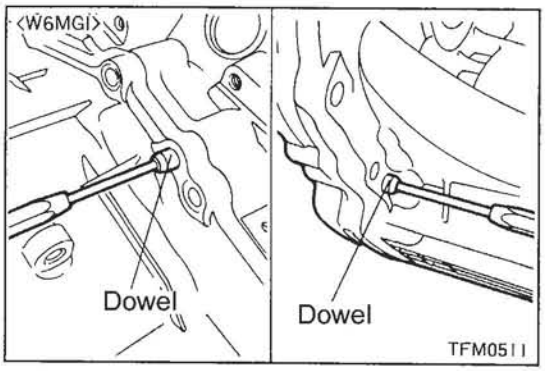
(2) Install the clutch housing.

Note:

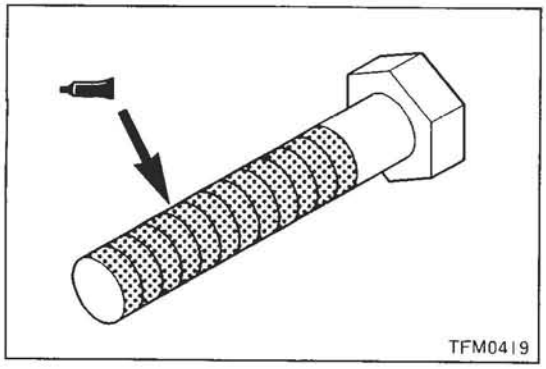
Do not scar the center shaft oil seal when installing the clutch housing.



(3) The dowel is driven down into the position illustrated. (W5MG1)

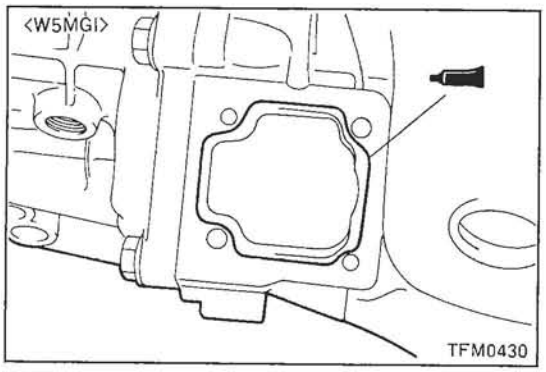


(4) The dowel is driven down into the position illustrated. (W6MG1)



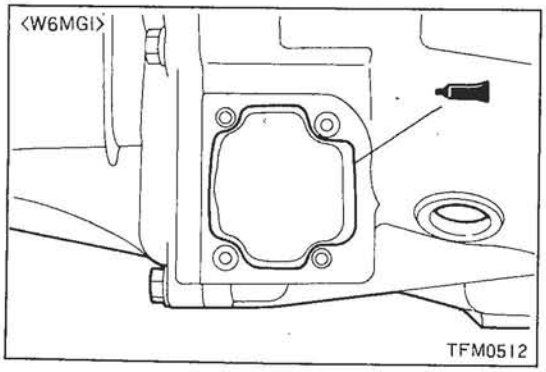
(5) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

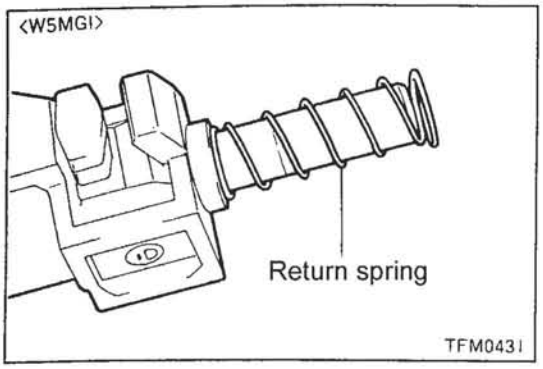
Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



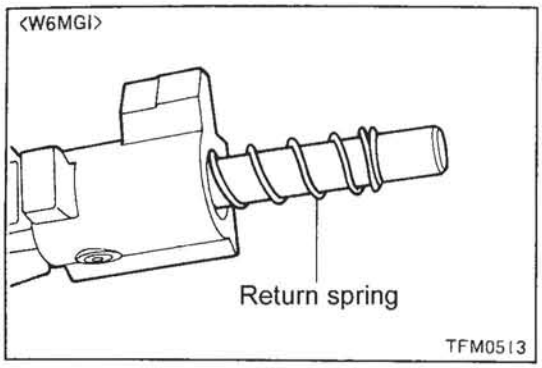
◆T◆ Installation of shift shaft

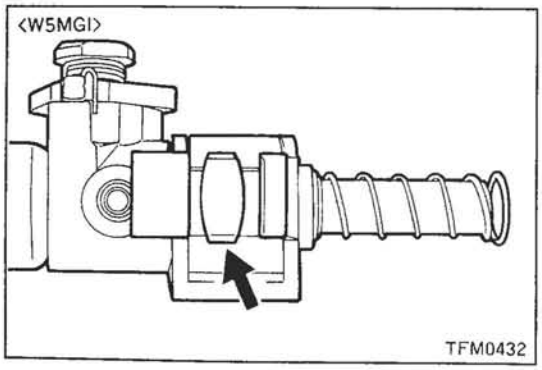
(1) Apply sealant to the illustrated position on the rear cover.
Sealant
Brand: Loc-tite #17430 or Mitsubishi Genuine Sealant MD997740
Note:
Squeeze out sealant from tube uniformly without excess or discontinuity



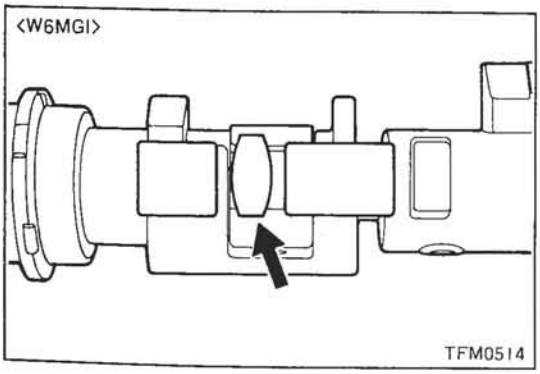


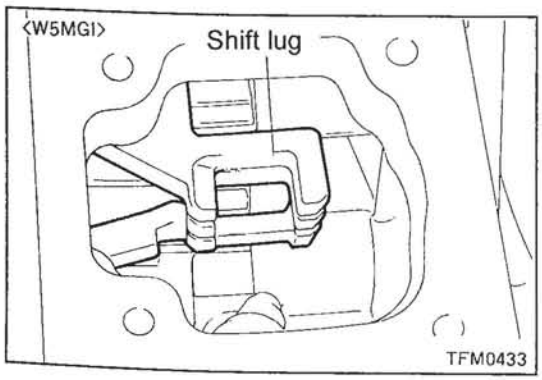
(2) Apply a coating of grease to the shift shaft to prevent the return spring from falling off during installation.



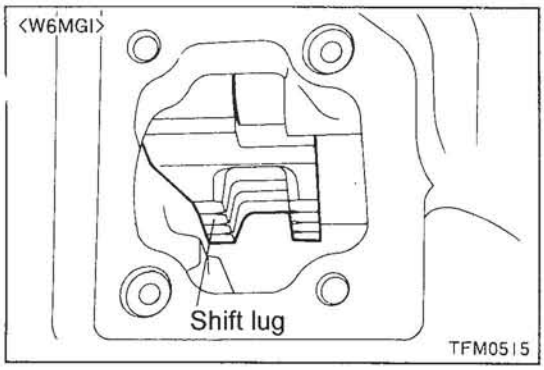


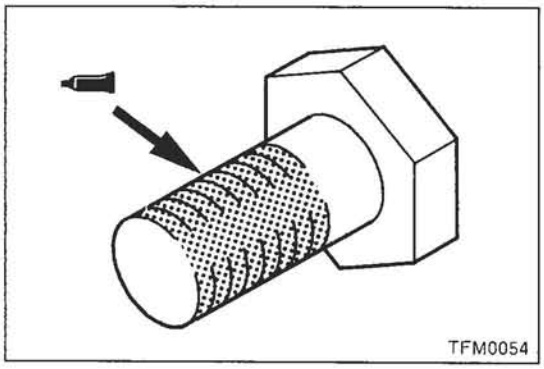
(3) The shift shaft must be kept in the position shown during installation.





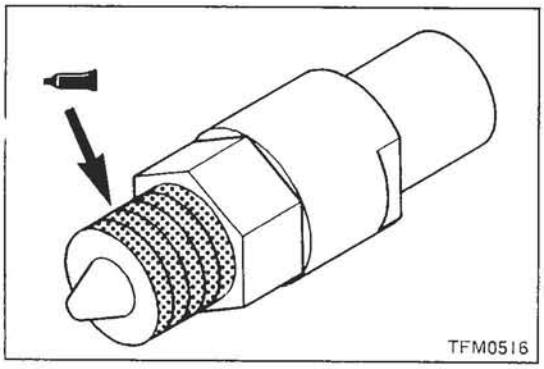
(4) While keeping the shift shaft in the position shown in Step 3, install the shaft into the shift rail lugs.





(5) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

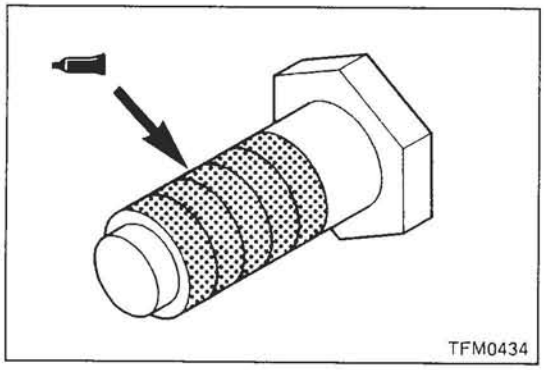
Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



◆U◆ Installation of reverse shift detent

(1) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

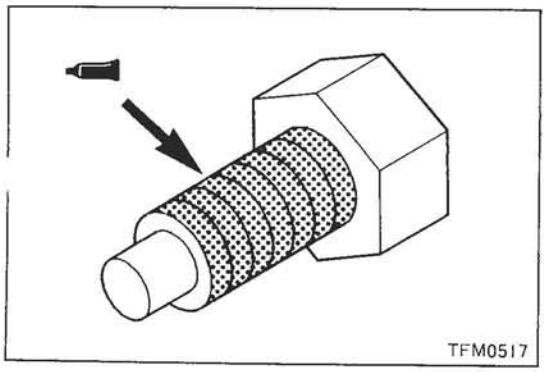
Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



◆V◆ Installation of guide bolt

(1) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

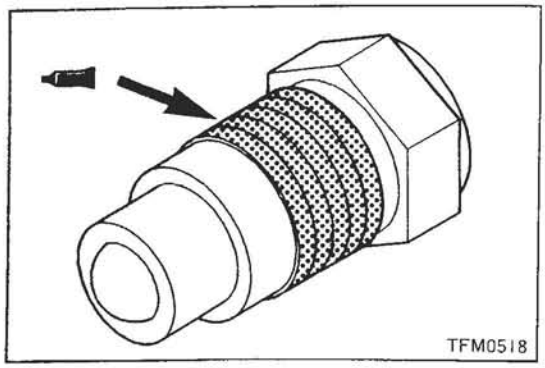
Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



◆W◆ Installation of guide bolt

(1) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

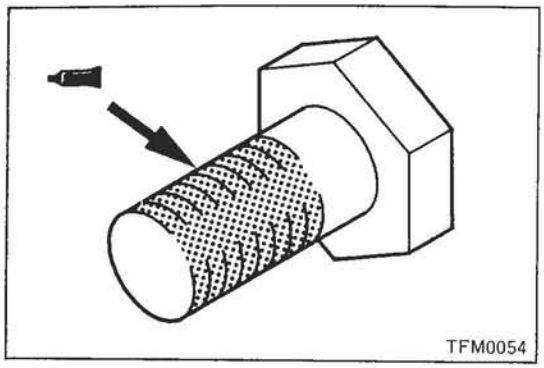
Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



➧X➧ Installation of shift detent

(1) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

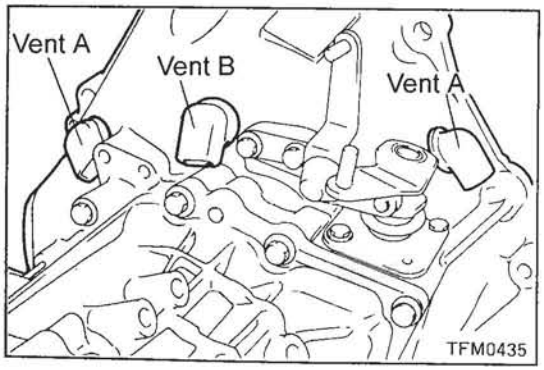
Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



➧Y➧ Installation of gear select lever

(1) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



➧Z➧ Installation of vents

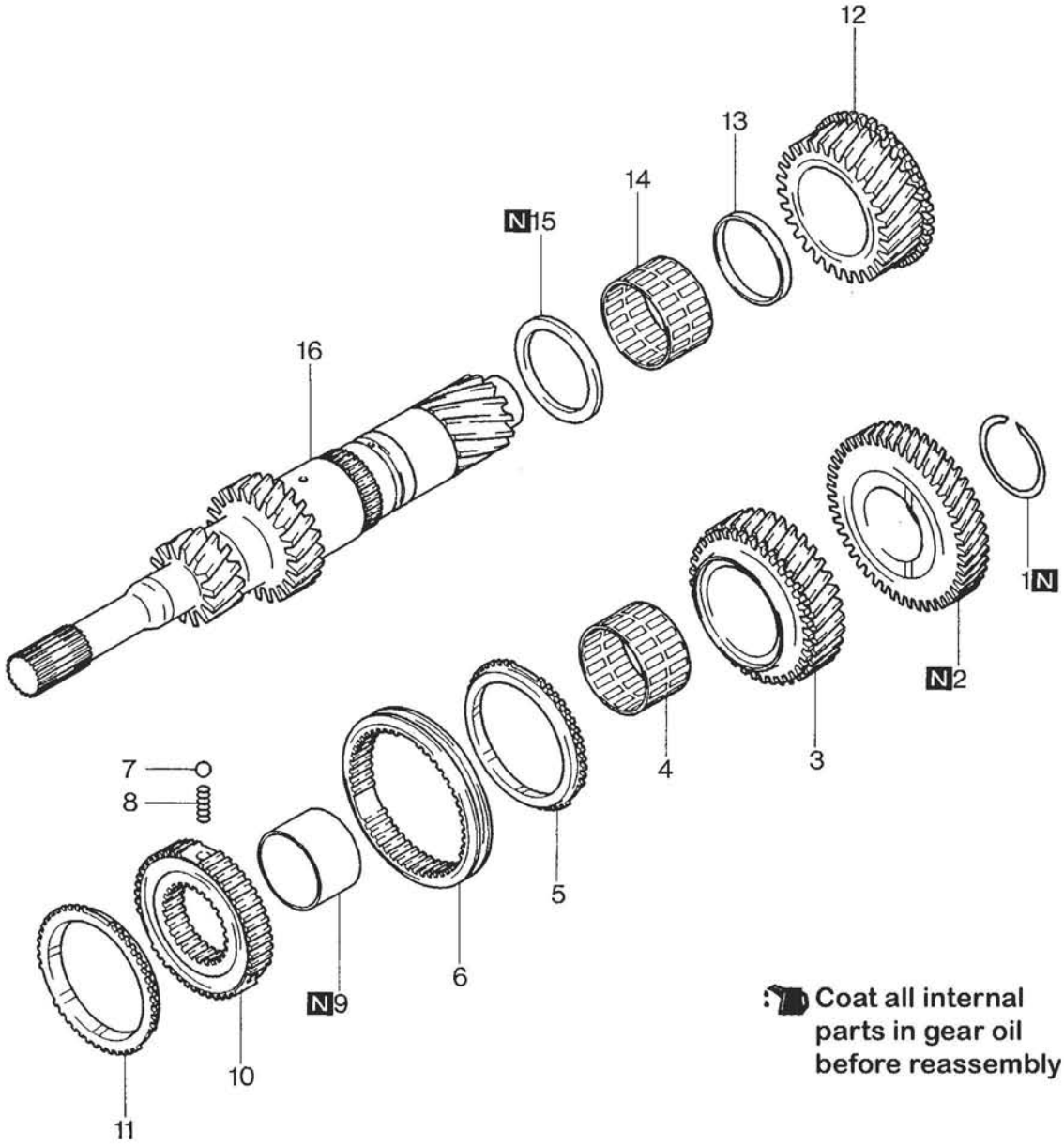
(1) Install the vent covers in the position shown in the installation.

➧AA➧ Installation of transfer case

(1) Apply specified grease to the splined sections of the center output shaft and the transfer case.

Specified grease:
Molykote TA #1 or #2

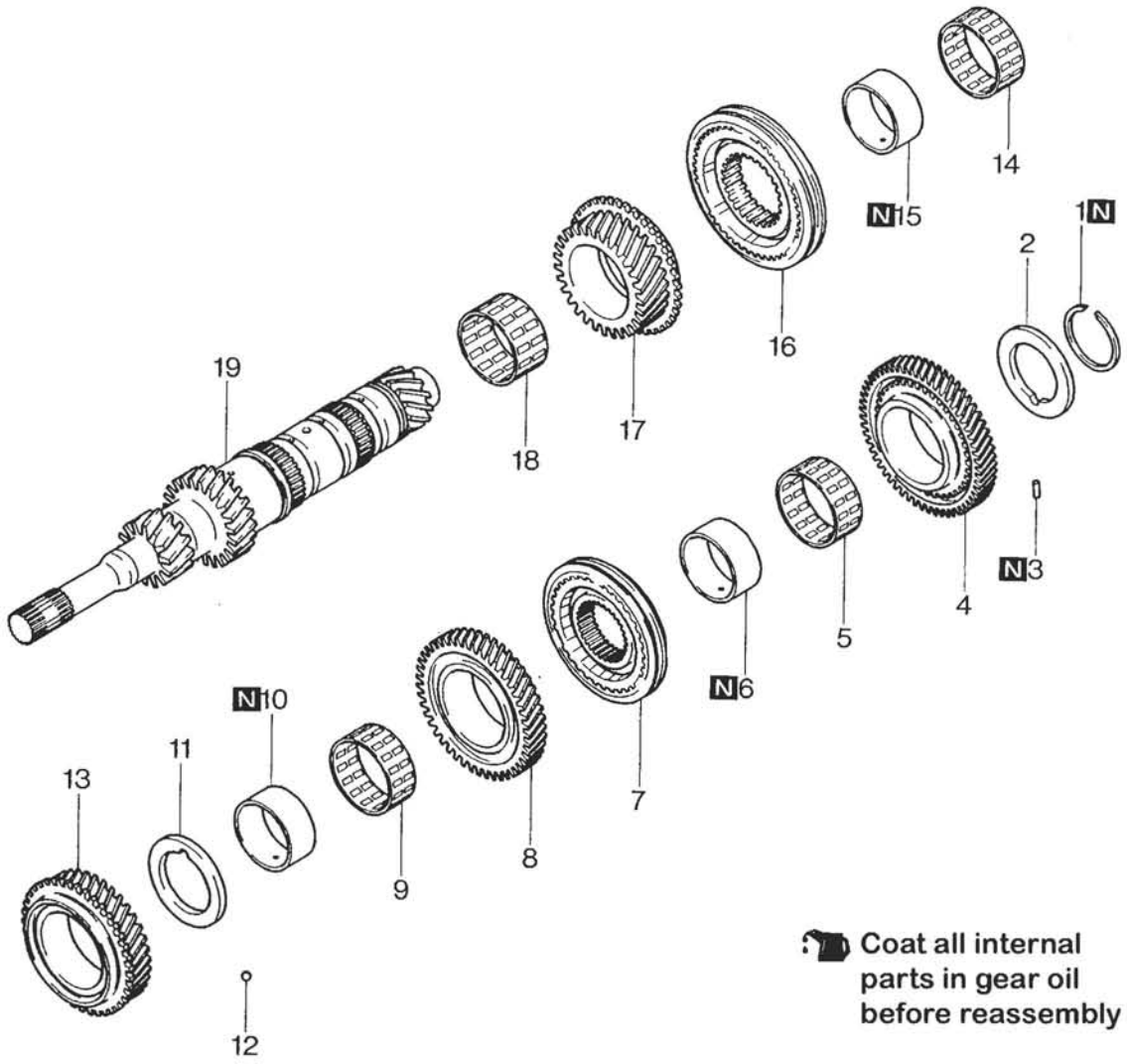
Disassembly / Reassembly W5MG1



Disassembly Procedure

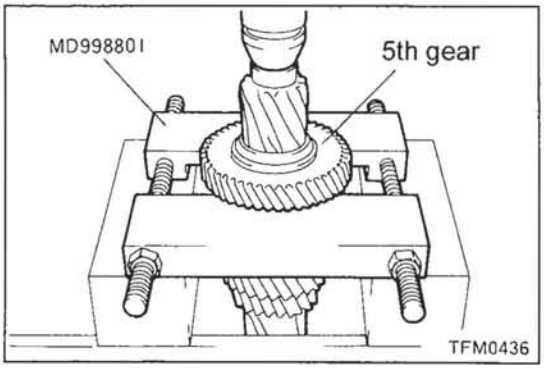
1. Snap ring
2. 5th gear
3. 4th gear
4. Needle bearing
5. Synchronizer ring
6. Synchronizer sleeve
7. Synchronizer ball
8. Synchronizer spring
9. Bearing sleeve
10. 3 - 4 Synchronizer hub
11. Synchronizer ring
12. 3rd gear
13. Bearing spacer
14. Needle bearing
15. Spacer ring
16. Input shaft

Disassembly/ Reassembly W6MG1



Disassembly Procedure

1. Snap ring
2. Spacer
3. Spring pin
4. 6th gear
5. Needle bearing
6. Bearing sleeve
7. 5 - 6 Synchronizer hub
8. 5th gear
9. Needle bearing
10. Bearing sleeve
11. Spacer
12. Steel ball
13. 4th gear
14. Needle bearing
15. Bearing sleeve
16. 3 - 4 Synchronizer hub
17. 3rd gear
18. Needle bearing
19. Input shaft

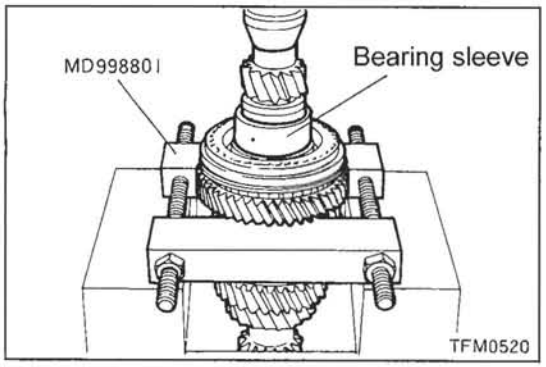


Disassembly service points

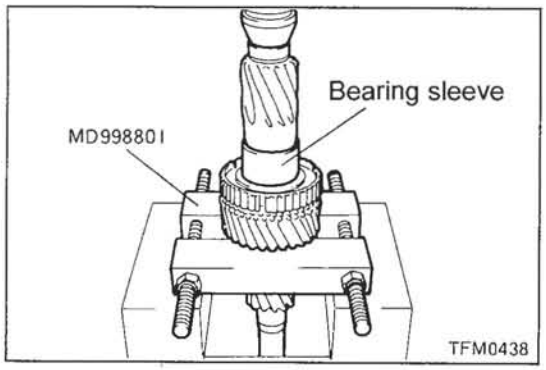
◇A◇ Removal of 5th gear

◇B◇ Removal of synchronizer sleeve

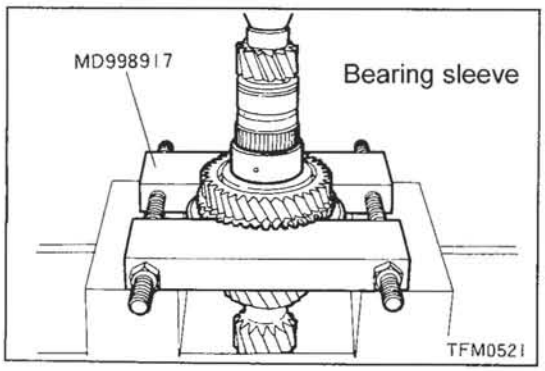
(1) Because there is a tendency for the synchronizer springs to pop out, cover the assembly with your hand during removal.



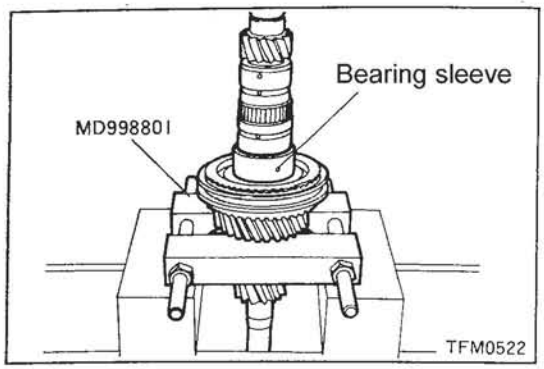
◇C◇ Removal of bearing sleeve

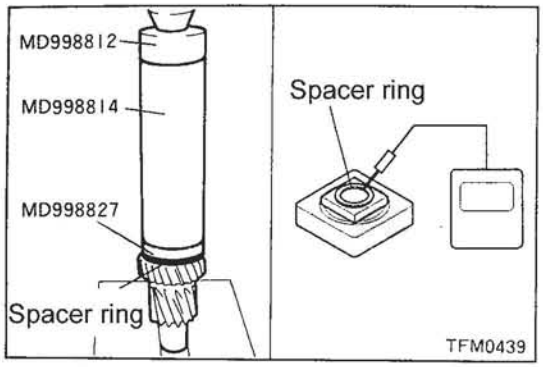


◇D◇ Removal of bearing sleeve



◇E◇ Removal of bearing sleeve





Assembly service points

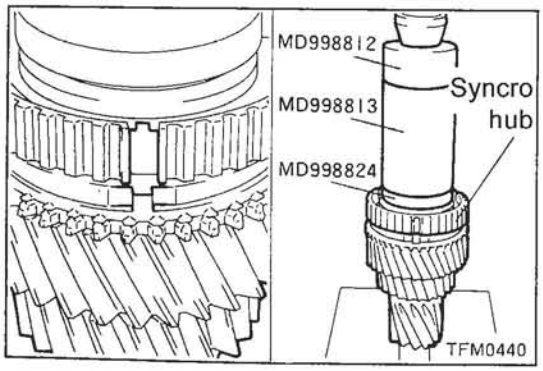
➧A➧ Installation of spacer ring

(1) Using an electric heater or similar device, heat the spacer ring.

Heating temperature: 110 - 120°C (230 - 248°F)

Note:

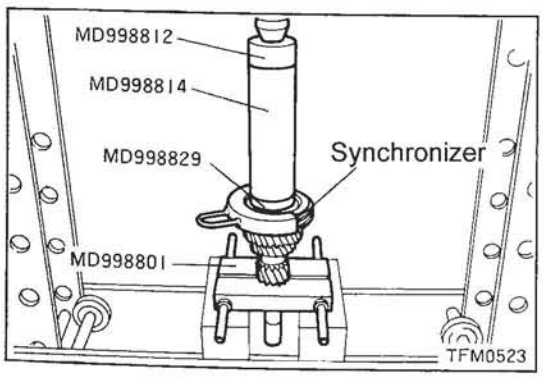
Try not to heat the part too much. Material will weaken under high temperature.



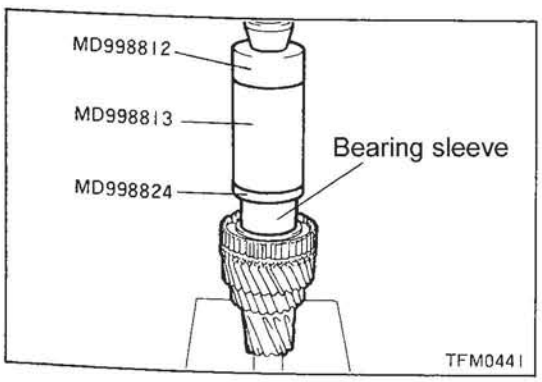
➧B➧ Installation of 3-4 synchronizer hub

Note:

Adjust the synchronizer ring and hub to the illustrated position.



➧C➧ Installation of 3-4 synchronizer



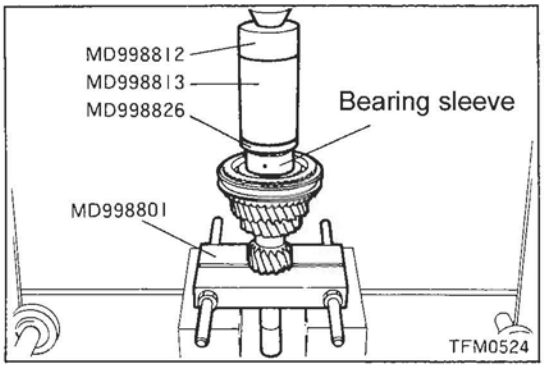
➧D➧ Installation of bearing sleeve

(1) Using an electric heater or similar device, heat the spacer ring.

Heating temperature: 110 - 120°C (230 - 248°F)

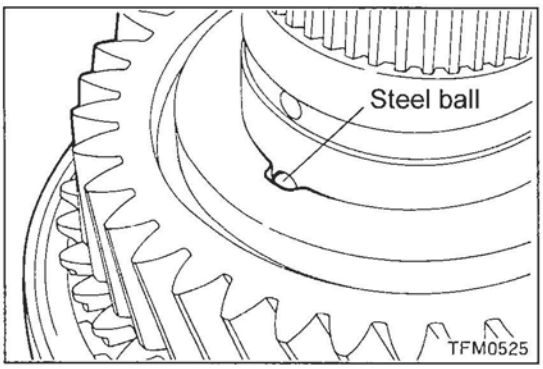
Note:

Try not to heat the part too much. Material will weaken under high temperature.



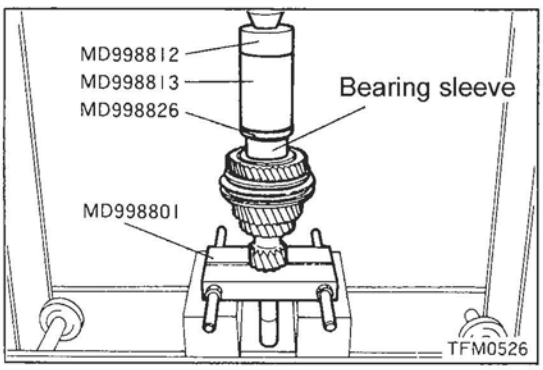
➧E➧ Installation of bearing sleeve

(1) Using an electric heater or similar device, heat the bearing sleeve.
Heating temperature: 110 - 120°C (230 - 248°F)
Note:
Try not to heat the part too much. Material will weaken under high temperature.



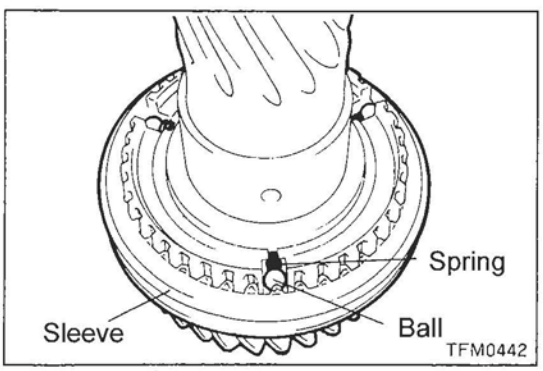
➧F➧ Installation of spacer

(1) Install the steel ball into the groove of the spacer.



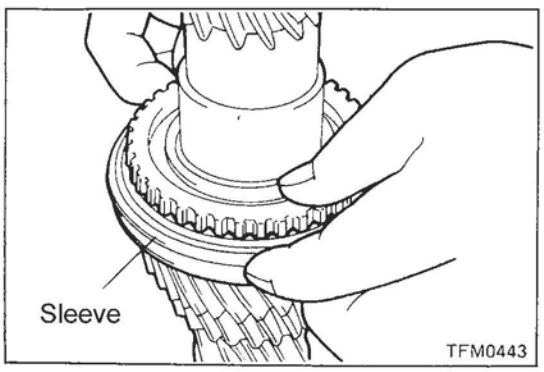
➧G➧ Installation of bearing sleeve

(1) Using an electric heater or similar device, heat the bearing sleeve.
Heating temperature: 110 - 120°C (230 - 248°F)
Note:
Try not to heat the part too much. Material will weaken under high temperature.



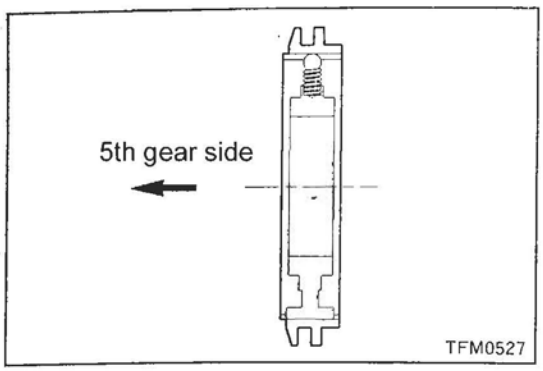
➧H➧ Installation of spring/ball/sleeve/ring

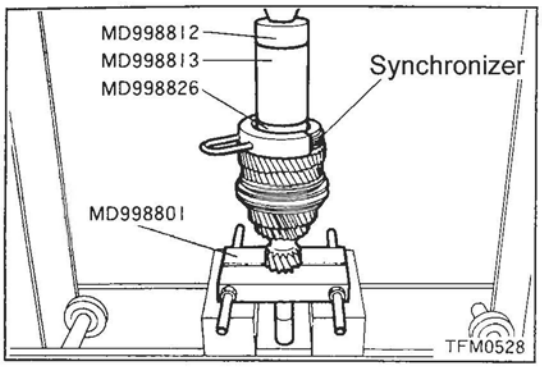
(1) Install the sleeve on the synchronizer hub and shift it towards the 3rd gear side.
(2) Install the synchronizer balls and springs (3 positions)



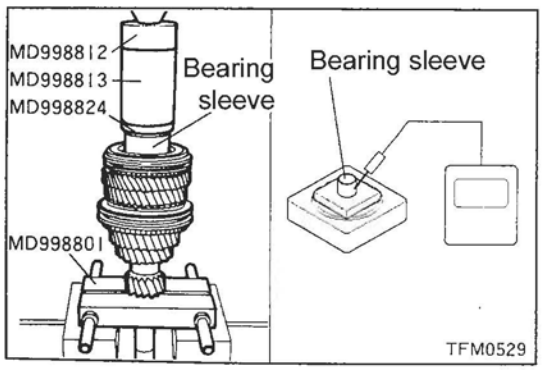
(3) Install the synchronizer ring
(4) While holding the synchronizer ring with a finger, move the sleeve to the 4th gear side.

Note:
When moving the sleeve to the 4th gear side, make certain the balls lock into the notch along the inside center of the sleeve.





◆I◆ Installation of 5th and 6th gear synchronizers



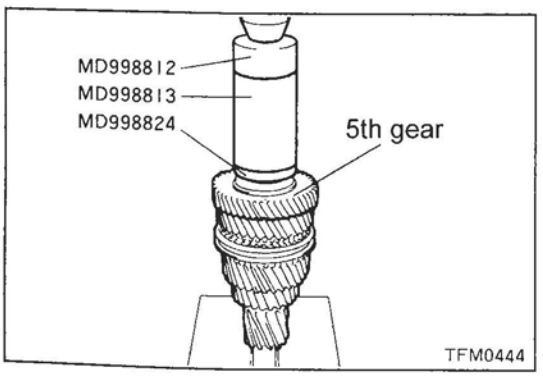
◆J◆ Installation of bearing sleeve

(1) Using an electric heater or similar device, heat the bearing sleeve.

Heating temperature: 110 - 120°C (230 - 248°F)

Note:

Try not to heat the part too much. Material will weaken under high temperature.



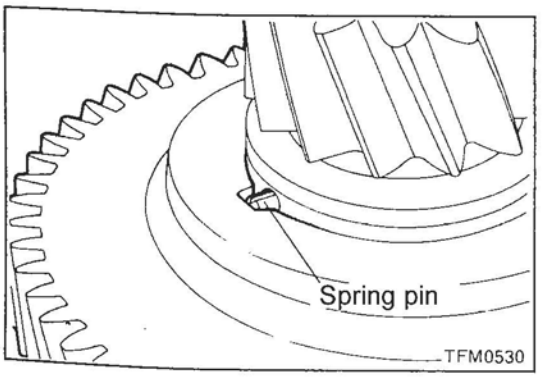
◆K◆ Installation of 5th gear

(1) Using an electric heater or similar device, heat the gear.

Heating temperature: 160 - 180°C (320 - 356°F)

Note:

Try not to heat the part too much. Material will weaken under high temperature.

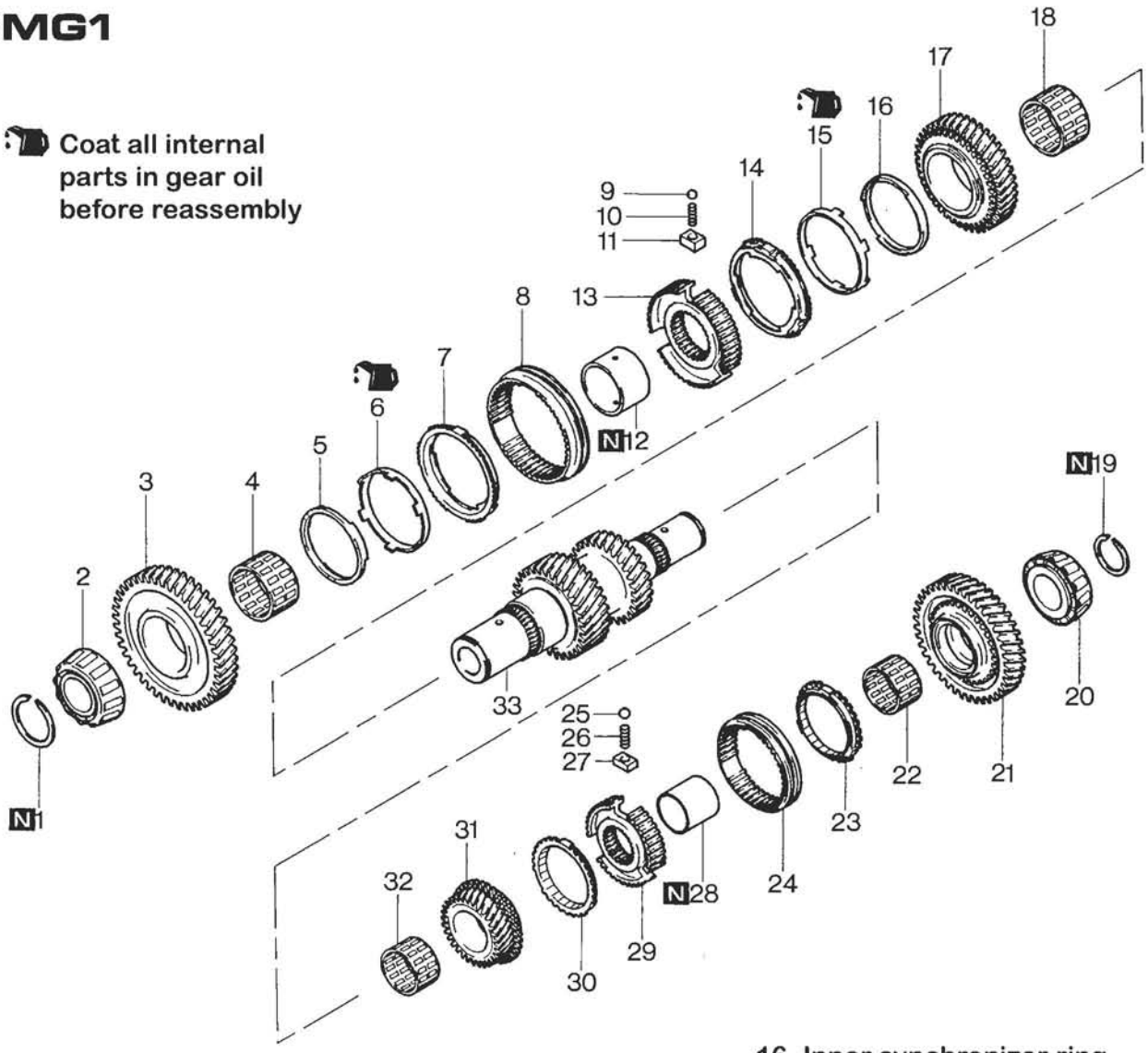


◆L◆ Installation of spacer

(1) Install the spring pin into the groove of the spacer.

Disassembly / Reassembly W5MG1

Coat all internal parts in gear oil before reassembly

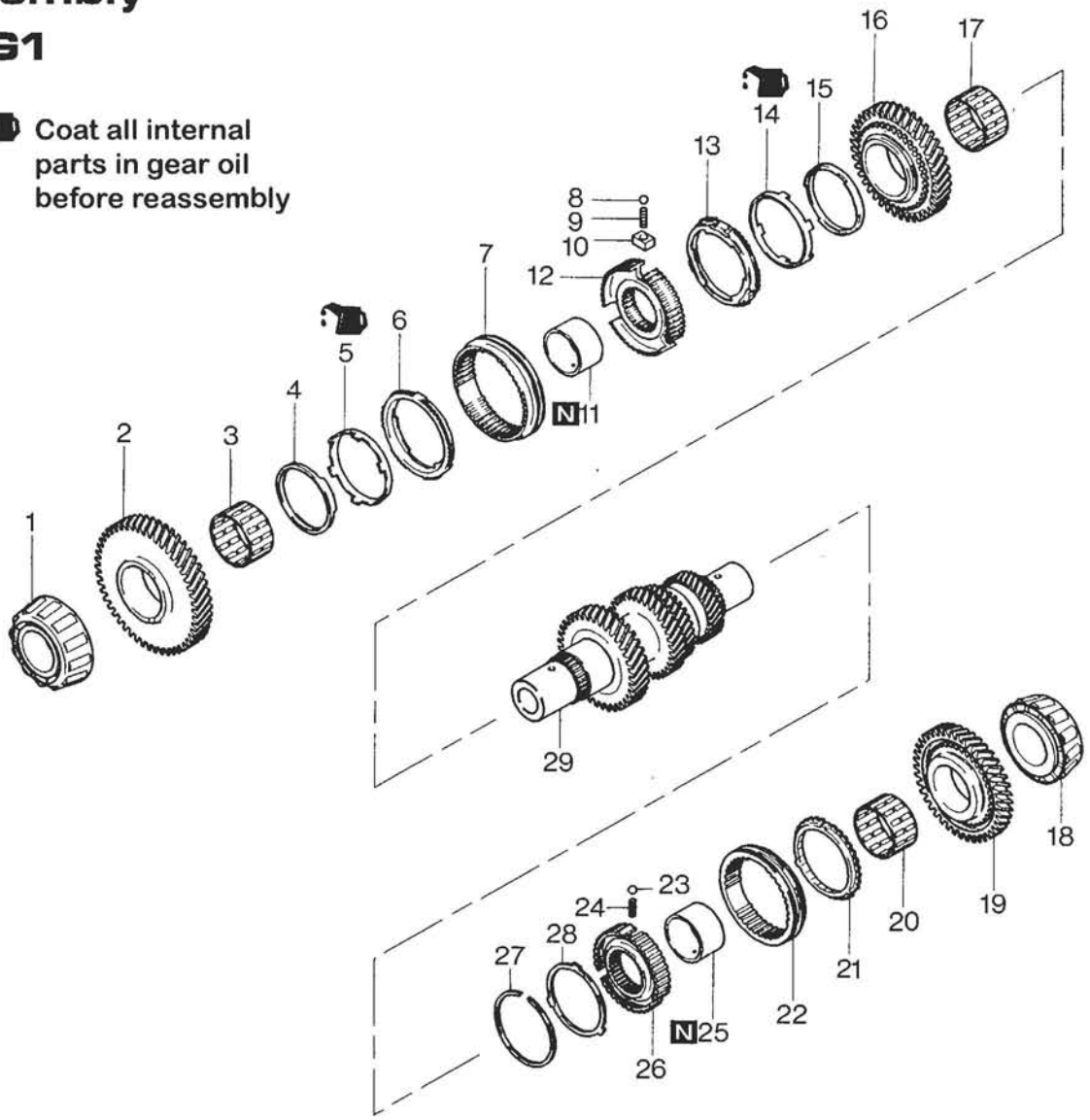


Disassembly Procedure

1. Snap ring
2. Inner bearing race
3. 1st gear
4. Needle bearing
5. Inner synchronizer ring
6. Synchronizer friction ring
7. Outer synchronizer ring
8. Synchronizer sleeve
9. Synchronizer ball
10. Synchronizer spring
11. Synchronizer key
12. Bearing sleeve
13. Synchronizer hub
14. Outer synchronizer ring
15. Synchronizer friction ring
16. Inner synchronizer ring
17. 2nd gear
18. Needle bearing
19. Snap ring
20. Inner bearing race
21. Reverse gear
22. Needle bearing
23. Synchronizer ring
24. Synchronizer sleeve
25. Synchronizer ball
26. Synchronizer spring
27. Synchronizer key
28. Bearing sleeve
29. Synchronizer hub
30. Synchronizer ring
31. 5th gear
32. Needle bearing
33. Intermediate shaft

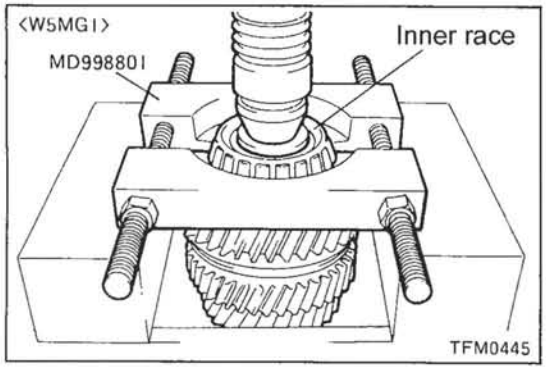
Disassembly/ Reassembly W6MG1

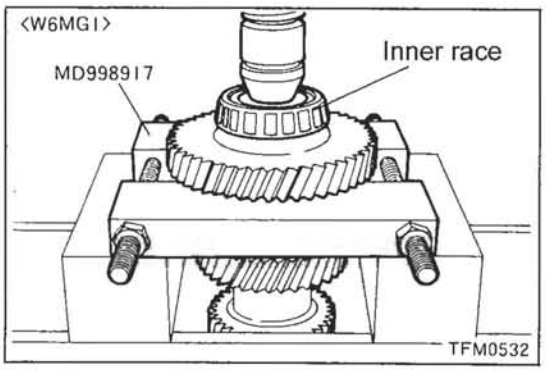
Coat all internal parts in gear oil before reassembly



Disassembly Procedure

- ⬡A⬡ ⬢K⬢ 1. Inner bearing race
- 2. 1st gear
- 3. Needle bearing
- 4. Inner synchronizer ring
- ⬢G⬢ 5. Synchronizer friction ring
- ⬢J⬢ 6. Outer synchronizer ring
- ⬡B⬡ ⬢J⬢ 7. Synchronizer sleeve
- ⬢J⬢ 8. Synchronizer ball
- ⬢J⬢ 9. Synchronizer spring
- ⬢J⬢ 10. Synchronizer key
- ⬡C⬡ ⬢I⬢ 11. Bearing sleeve
- ⬢H⬢ 12. Synchronizer hub
- 13. Outer synchronizer ring
- ⬢G⬢ 14. Synchronizer friction ring
- 15. Inner synchronizer ring
- 16. 2nd gear
- 17. Needle bearing
- ⬡D⬡ ⬢F⬢ 18. Inner bearing race
- 19. Reverse gear
- 20. Needle bearing
- ⬢E⬢ 21. Synchronizer ring
- ⬡B⬡ ⬢E⬢ 22. Synchronizer sleeve
- ⬢E⬢ 23. Synchronizer ball
- ⬢E⬢ 24. Synchronizer spring
- ⬡E⬡ ⬢C⬢ 25. Bearing sleeve
- ⬢B⬢ 26. Synchronizer hub
- 27. Snap ring
- 28. Stopper plate
- 29. Intermediate shaft



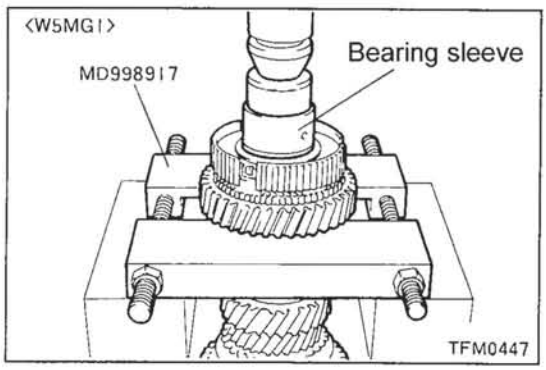


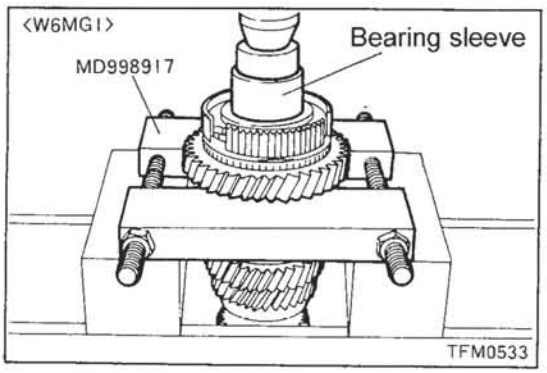
Disassembly service points

◇A◇ Removal of inner bearing race

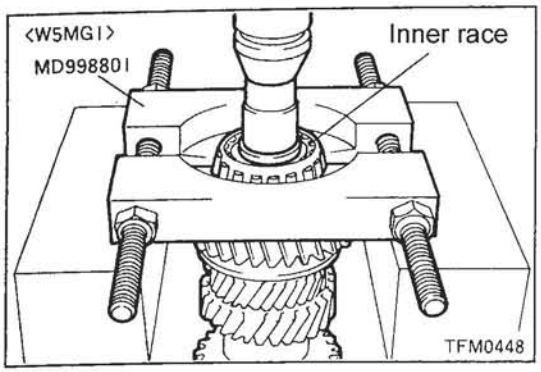
◇B◇ Removal of synchronizer sleeve

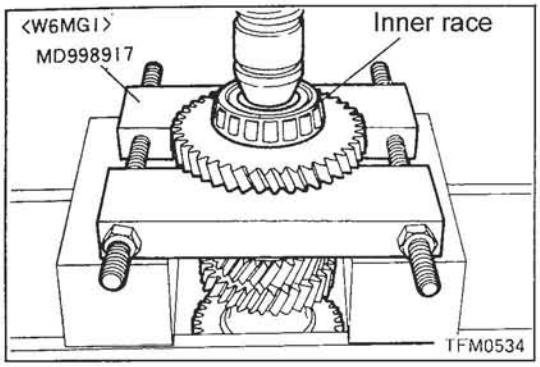
(1) Because there is a tendency for the synchronizer springs to pop out, cover the assembly with your hand during removal.



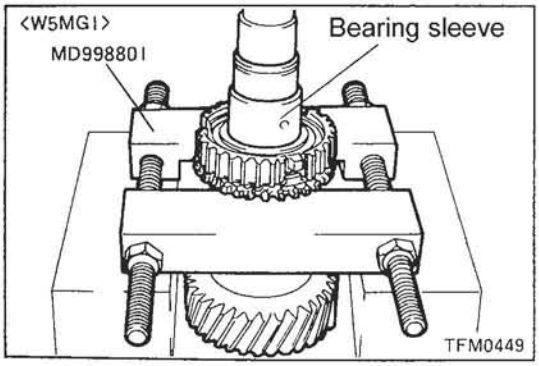


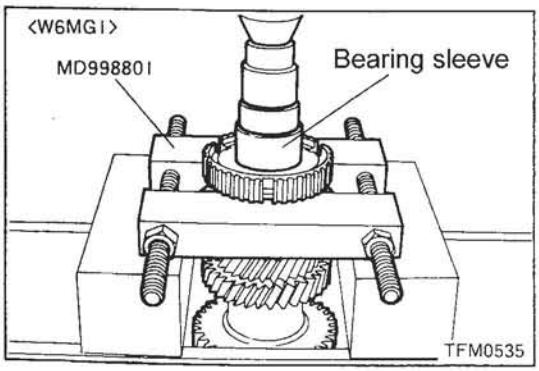
◇C◇ Removal of bearing sleeve



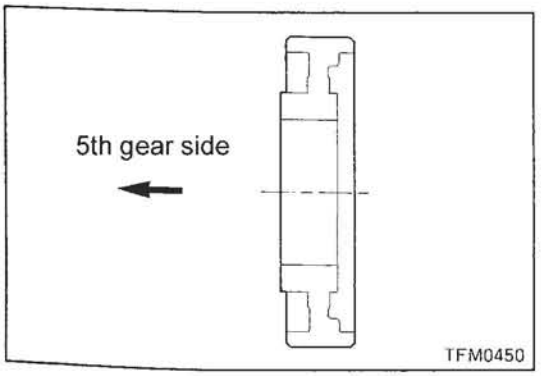


⇨D⇦ Removal of inner bearing race



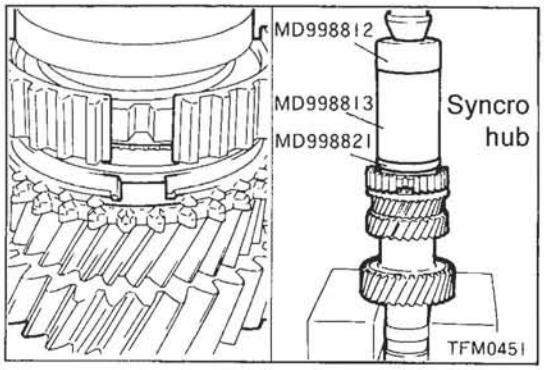


⇨E⇦ Removal of bearing sleeve

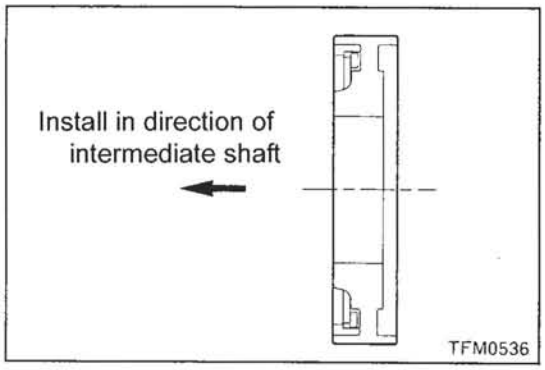


Assembly service points

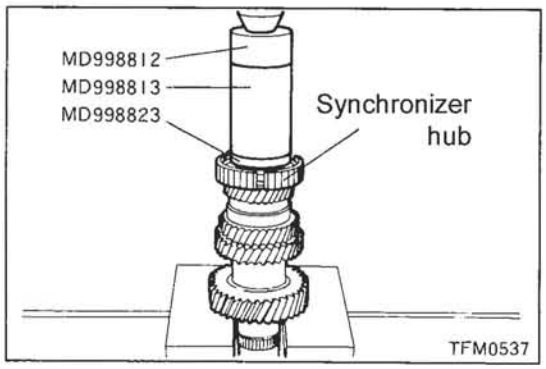
➧A⇦ Installation of 5-R synchronizer hub

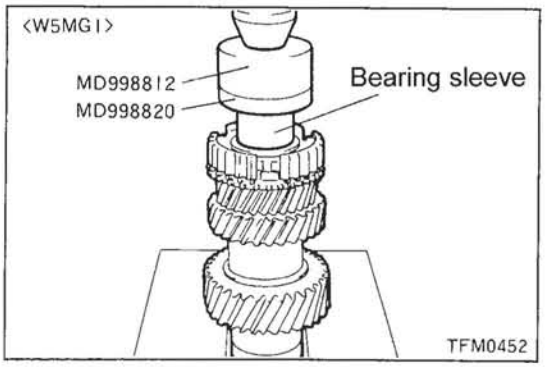


Note:
Adjust the synchronizer ring and hub to the illustrated position.



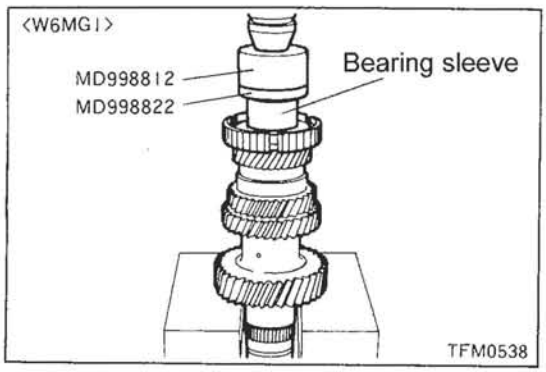
➧B➧ Installation of reverse synchronizer hub

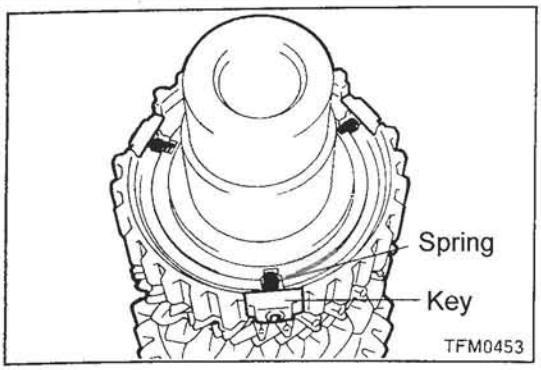




➧C➧ Installation of bearing sleeve

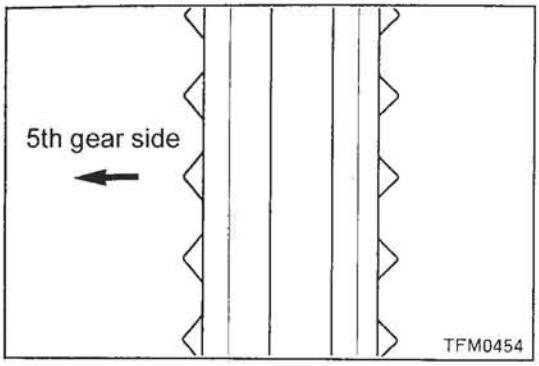
(1) Using an electric heater or similar device, heat the spacer ring.
Heating temperature: 110 - 120°C (230 - 248°F)
Note:
Try not to heat the part too much. Material will weaken under high temperature.



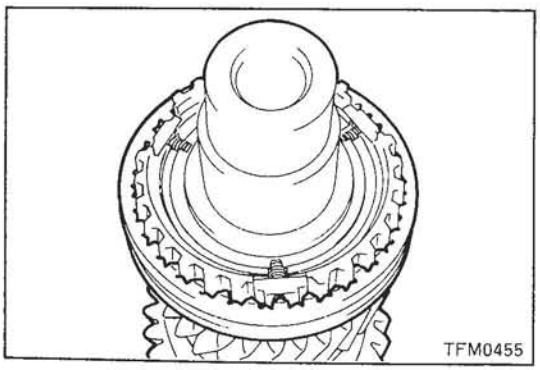


➧D➧ Installation of synchronizer key/ball /spring/sleeve/ring

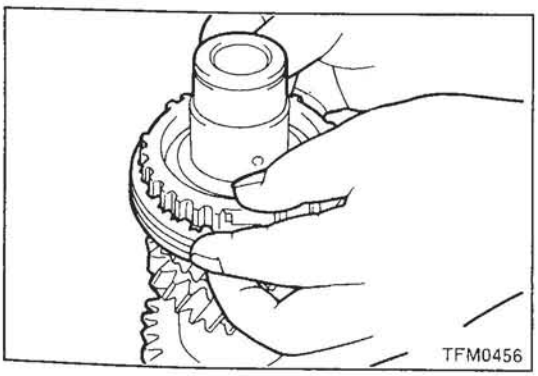
(1) Install the key and spring in the synchronizer hub. (3 positions)



(2) Verify the direction of the synchronizer sleeve during installation.

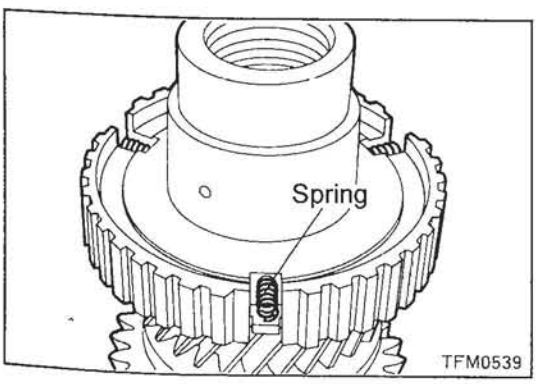


(3) Align the spines of the synchronizer sleeve with the grooves in the synchronizer hub.
(4) Shift the synchronizer sleeve to the 5th gear side
(5) Install the synchronizer balls (3 positions)



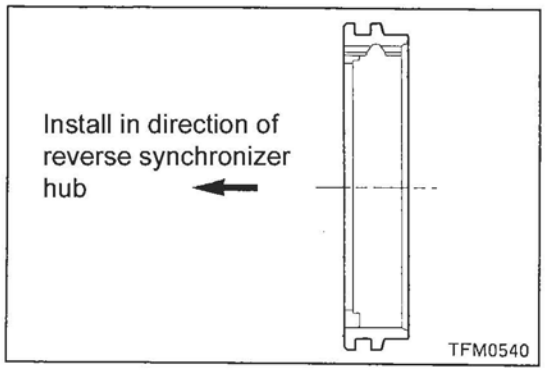
(6) Install the synchronizer ring
(7) While holding down the synchronizer ring, slide the sleeve to the reverse gear side.

Note:
When moving the sleeve to the reverse gear side, make sure the keys lock into the notch along the inside center of the sleeve.

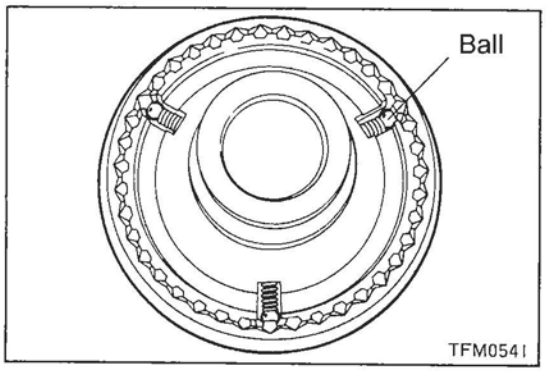


➧E➧ Installation of synchronizer key/ball /spring/sleeve/ring

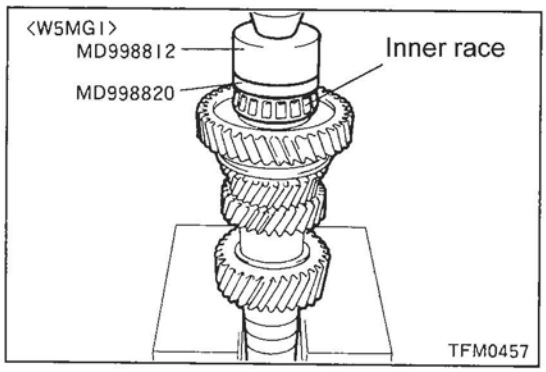
(1) Install the springs in the synchronizer hub (3 positions)



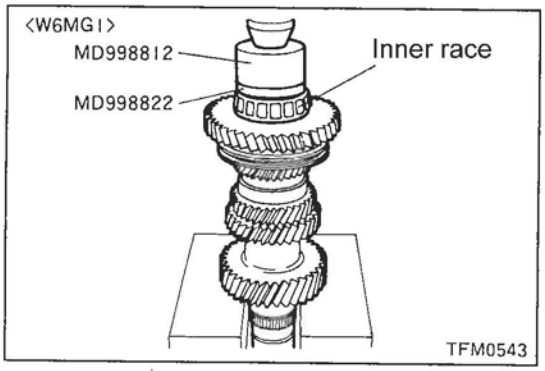
(2) Verify direction of synchronizer sleeve during installation.

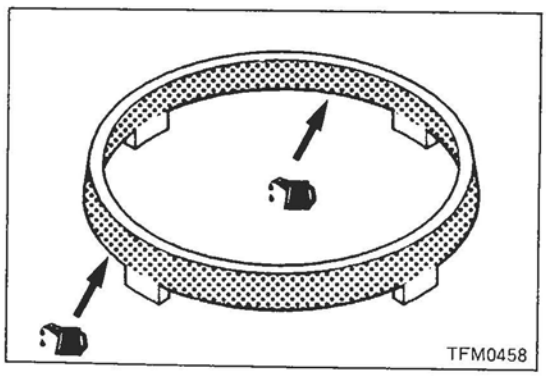


(3) Install the synchronizer balls (3 positions)



◆F◆ Installation of inner bearing race

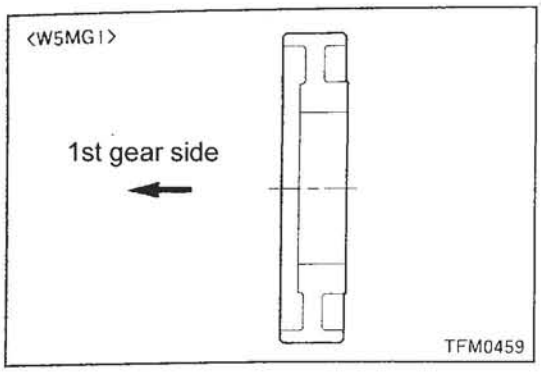




◆G◆ Installation of synchronizer friction ring

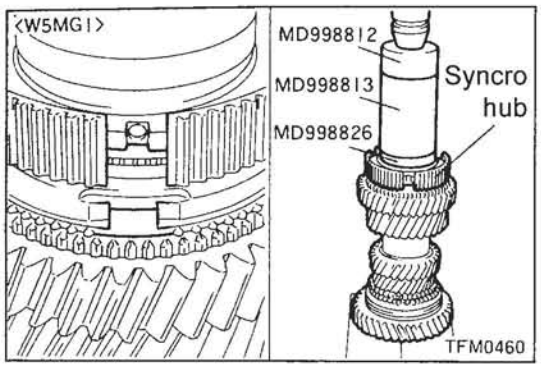
(1) Apply specified gear oil gear oil to the faces of the friction ring

Specified oil:
API GL-4 or higher, 75W-90 to 75W-85W

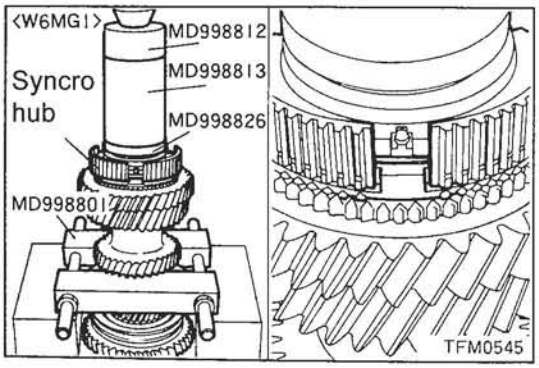


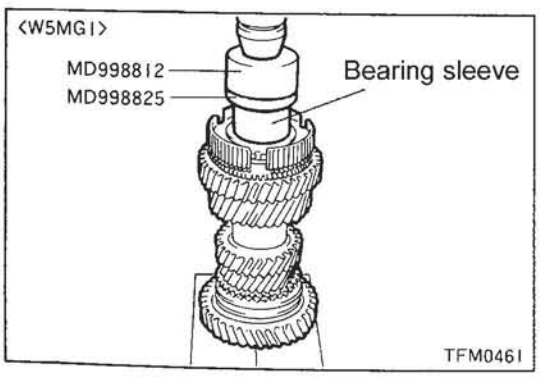
Installation of 1-2 synchronizer hub

Note:
Orientation of hub is the same for W6MG1



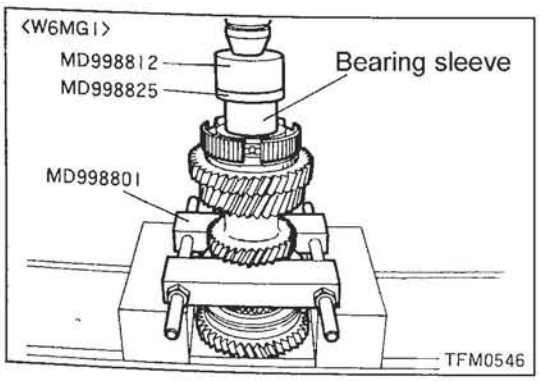
Note:
Adjust the synchronizer ring and hub to the illustrated position.

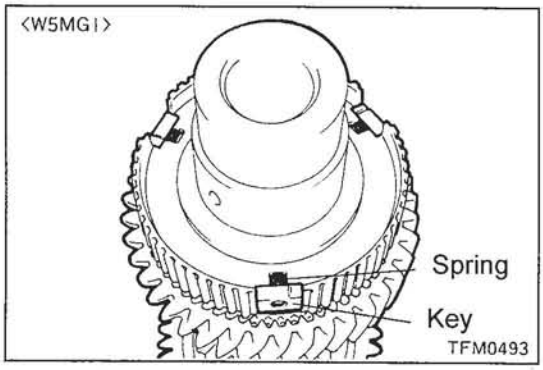




Installation of bearing sleeve

(1) Using an electric heater or similar device, heat the bearing sleeve.
Heating temperature: 110 - 120°C (230 - 248°F)
Note:
Try not to heat the part too much. Material will weaken under high temperature.

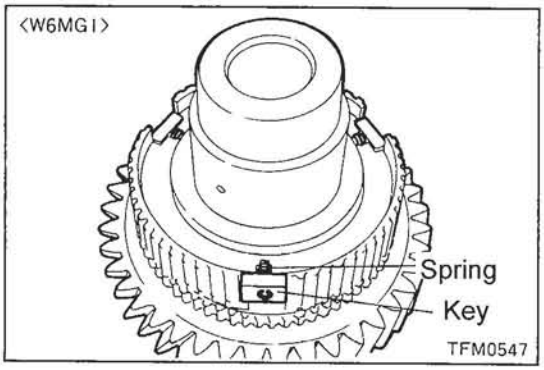


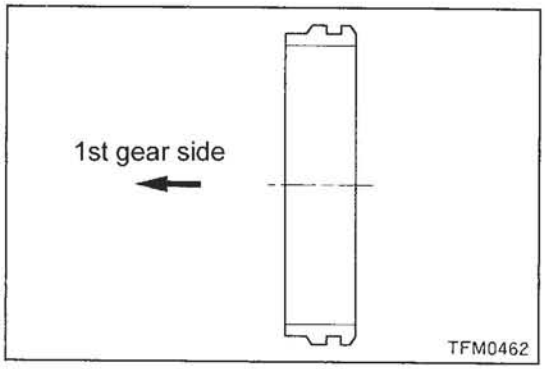


⬧J⬧ Installation of synchronizer ball/spring /sleeve/ring

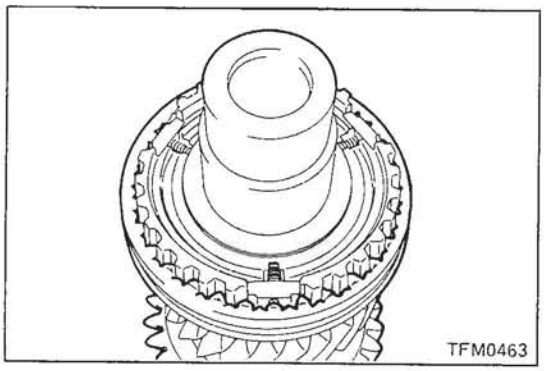
(1) Install the keys and springs in the synchronizer hub (3 positons)

Note:
Install keys with chamfer facing outside

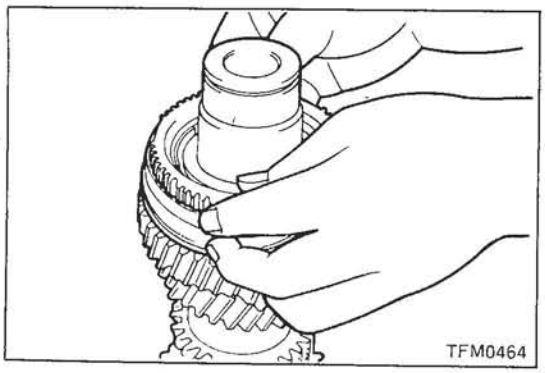




(2) Verify direction of synchronizer sleeve during installation.

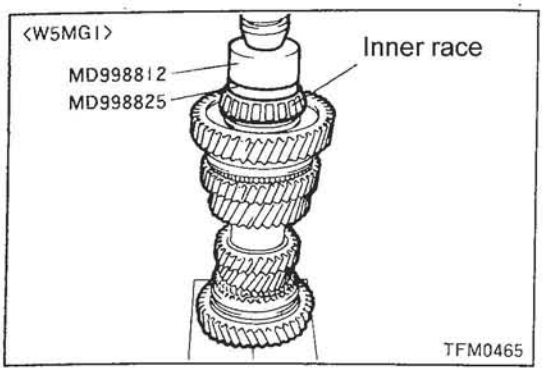


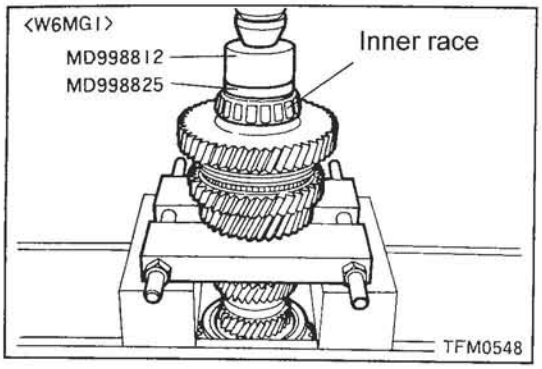
(3) Shift the synchronizer sleeve to the 2nd gear side
(4) Install the synchronizer balls (3 positions)



(5) The synchronizer ring is installed
(6)Hold down the synchronizer ring with a finger and slide the sleeve to the 1st gear side.

Note:
When moving the sleeve to the 1st gear side, make certain the keys lock into the notch along the inside center of the sleeve.

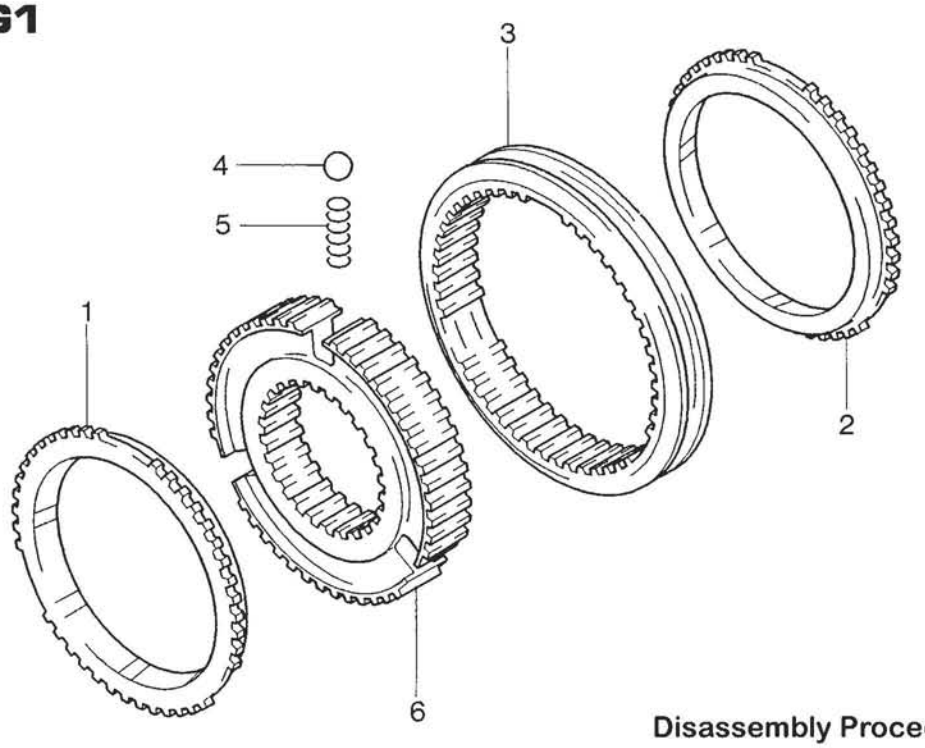




➡K⬅ Installation of inner bearing race

Disassembly/ Reassembly

W6MG1



Disassembly Procedure

1. 3rd gear synchronizer ring
2. 4th gear synchronizer ring
3. ⬡A⬡ ⬢A⬢ Synchronizer sleeve
4. ⬢A⬢ Synchronizer ball
5. ⬢A⬢ Synchronizer spring
6. Synchronizer hub

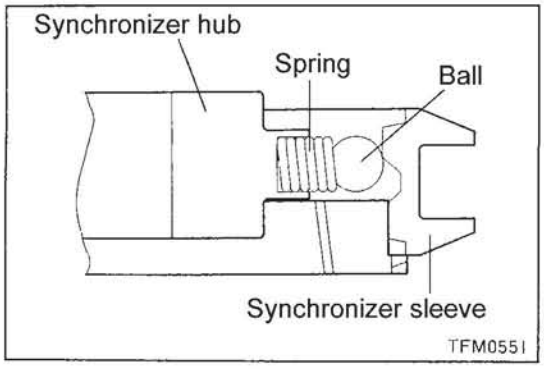
Coat all internal parts in gear oil before reassembly

TFM0549

Disassembly service points

⬡A⬡ Removal of synchronizer sleeve

(1) Because there is a tendency for the synchronizer springs to pop out, cover the assembly with your hand during removal.

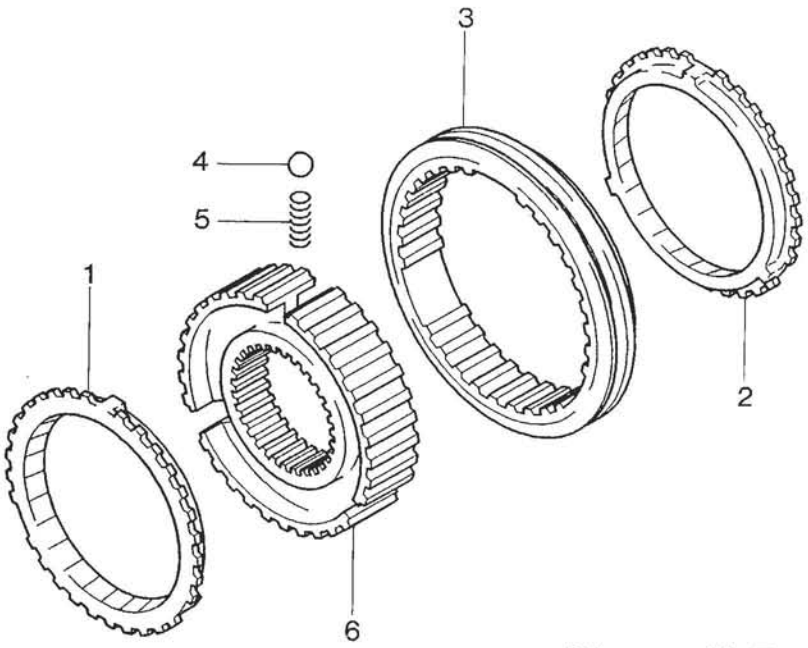


Assembly service points

⬢A⬢ Installation of synchronizer spring /ball/sleeve

(1) Install the 4th gear synchronizer ring and sleeve on the synchronizer hub
(2) Install the synchronizer springs and balls (3 positions)

Disassembly/ Reassembly W6MG1



Disassembly Procedure

1. 5th gear synchronizer ring
2. 6th gear synchronizer ring
3. ⇩A⇩⇧A⇧ Synchronizer sleeve
4. ⇧A⇧ Synchronizer ball
5. ⇧A⇧ Synchronizer spring
6. Synchronizer hub

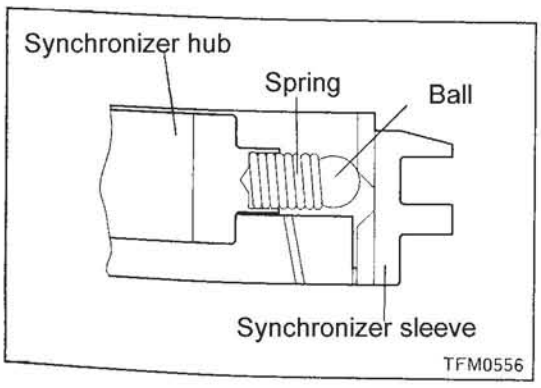
Coat all internal parts in gear oil before reassembly

TFM0549

Disassembly service points

⇩A⇩ Removal of synchronizer sleeve

(1) Because there is a tendency for the synchronizer springs to pop out, cover the assembly with your hand during removal.

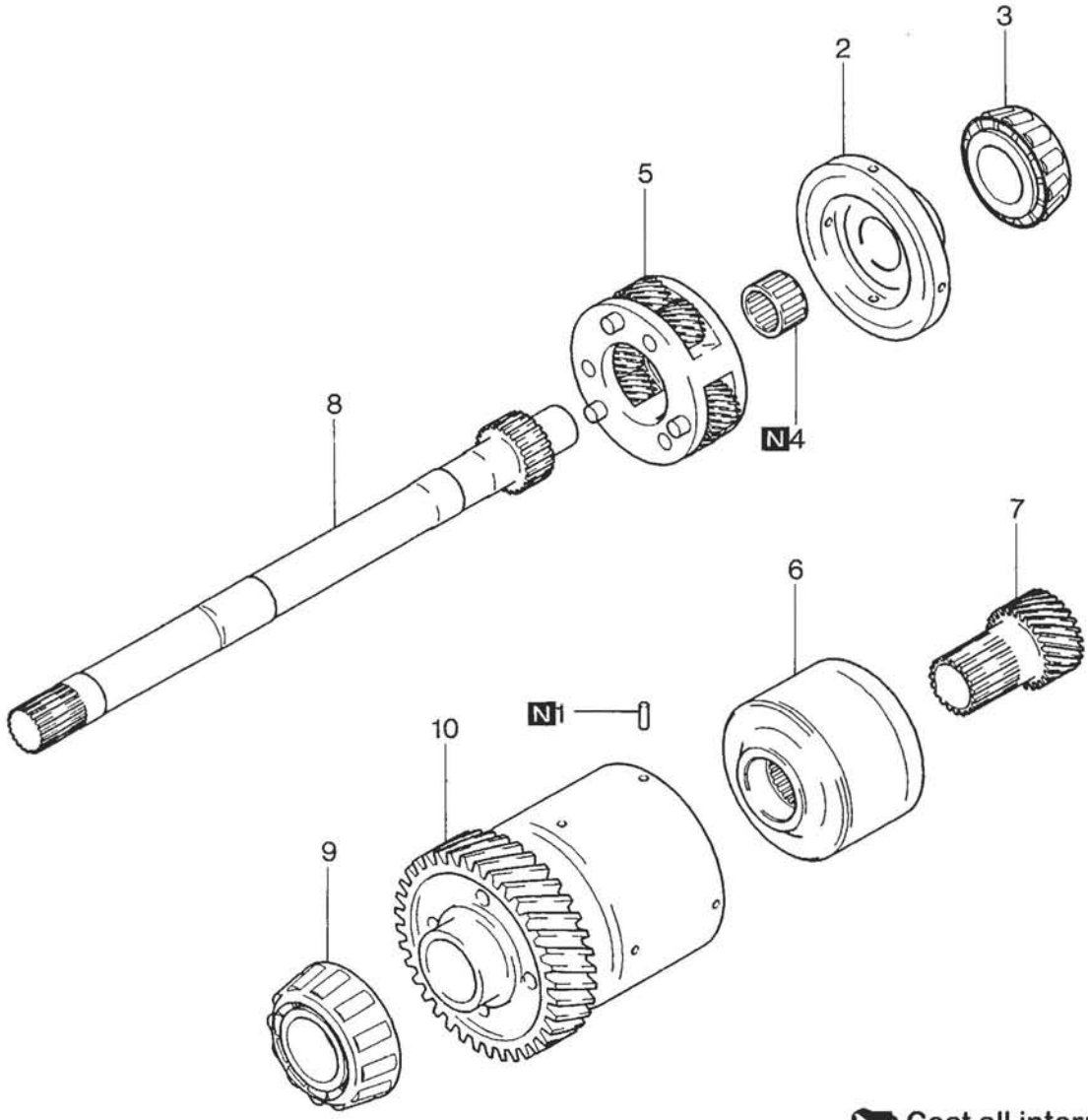


Assembly service points

⇧A⇧ Installation of synchronizer spring /ball/sleeve

(1) Install the 6th gear synchronizer ring and sleeve on the synchronizer hub
(2) Install the synchronizer springs and balls (3 positions)

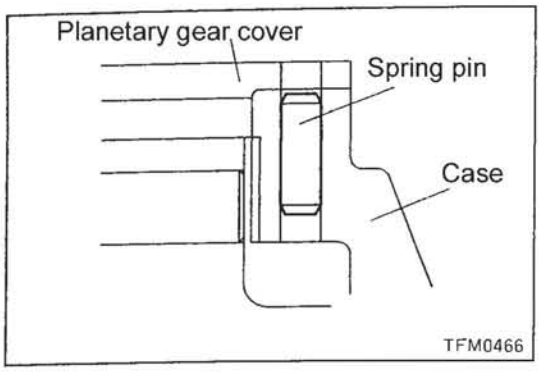
Disassembly/ Reassembly



Coat all internal parts in gear oil before reassembly

Disassembly Procedure

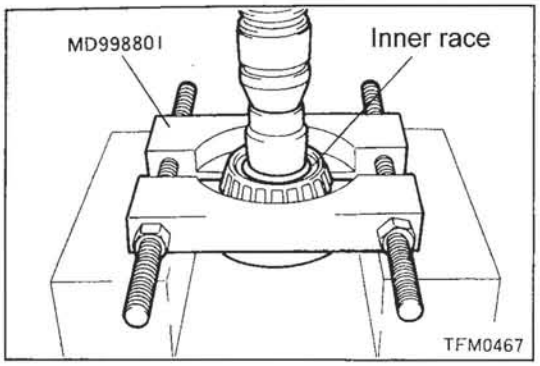
- ◆E◆ 1. Dowel
- ◇A◇ ◆D◆ 2. End cover
- ◇B◇ ◆C◆ 3. Inner bearing race
- ◇C◇ ◆B◆ 4. Needle bearing
- 5. Planetary gear set
- 6. Viscous coupling
- 7. Sun gear
- 8. Center output shaft
- ◇D◇ ◆A◆ 9. Inner bearing race
- 10. Center differential case



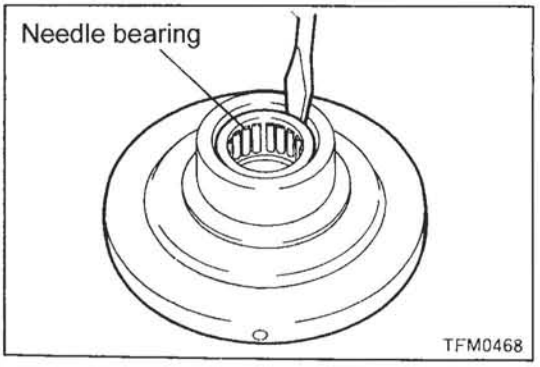
Disassembly service points

◇A◇ Removal of planetary gear cover

(1) Drive the spring pin down into the illustrated position.

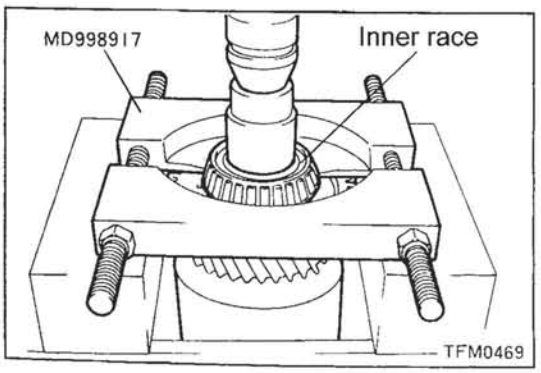


◇B◇ Removal of inner bearing race

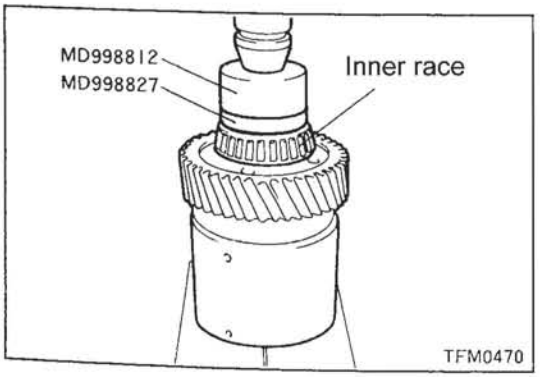


◇C◇ Removal of needle bearing

(1) Using a screwdriver or similar tool, remove the needle bearing.

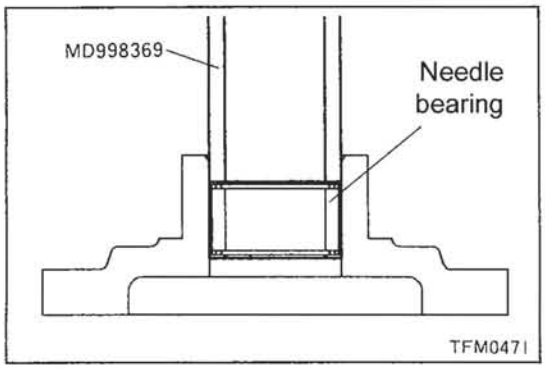


◇D◇ Removal of inner bearing race



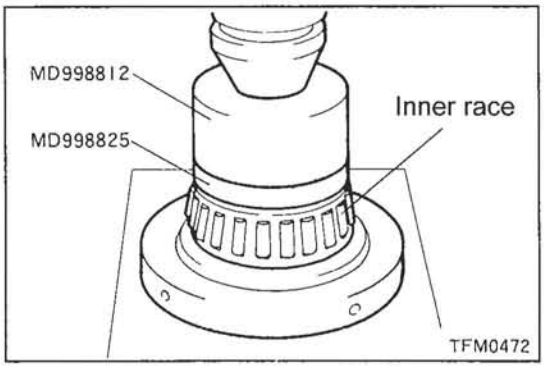
Assembly service points

◆A◆ Installation of inner bearing race

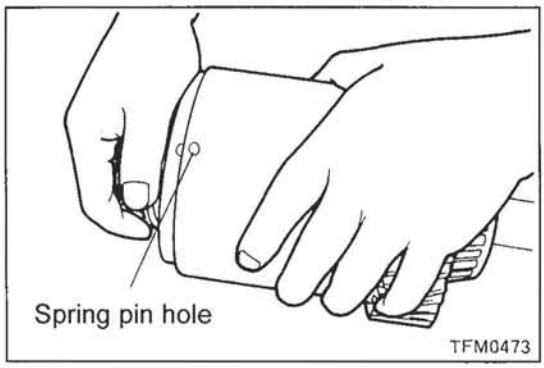


➧B➧ Installation of needle bearing

(1) Press the needle bearing into the illustrated position.

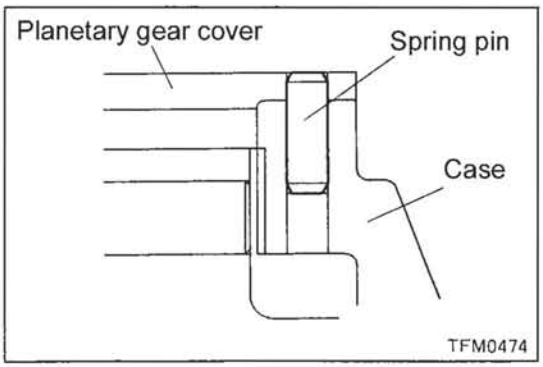


➧C➧ Installation of inner bearing race



➧D➧ Installation of inner bearing race

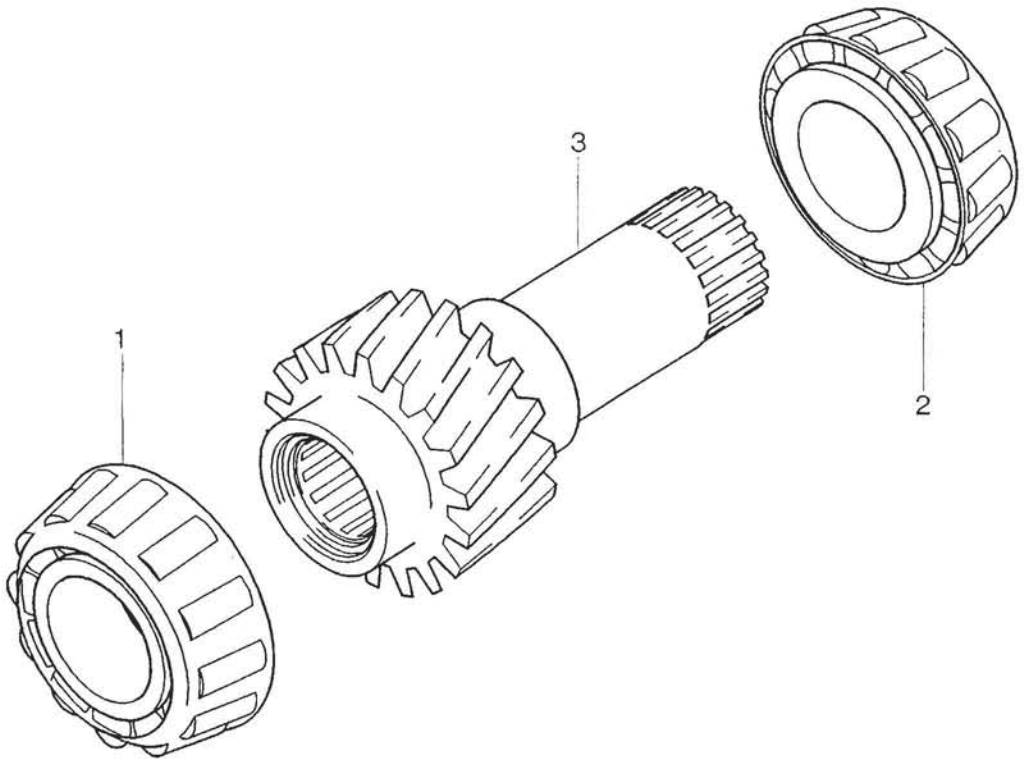
(1) Align the spring pin holes of the cover and differential case using a plastic hammer.



➧E➧ Installation of spring pin

(1) Drive the spring pins down flush with the surface of the differential case.

Disassembly/ Reassembly

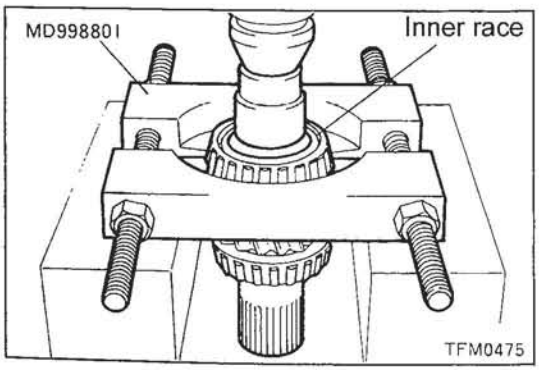


Disassembly Procedure

- ⇨A⇦ ⇨B⇦ 1. Inner bearing race
- ⇨A⇦ ⇨A⇦ 2. Inner bearing race
- 3. Output shaft

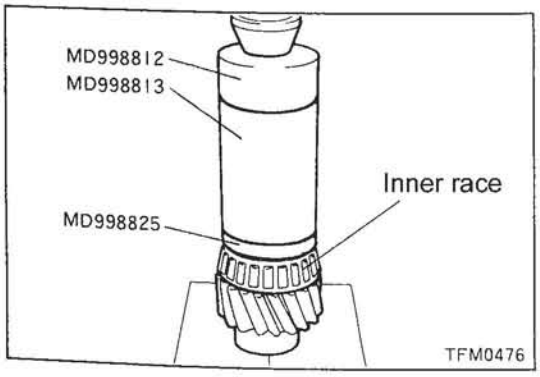
Coat all internal parts in gear oil before reassembly

TFM0388



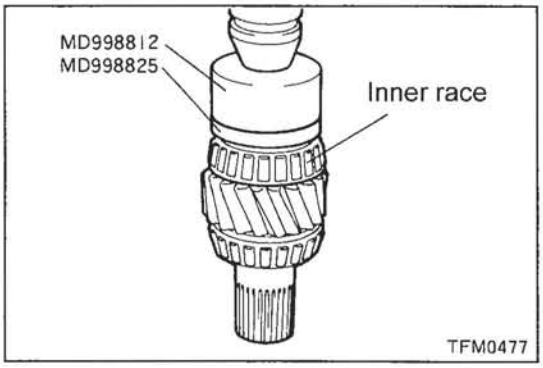
Disassembly service points

⇨A⇦ **Removal of inner bearing race**



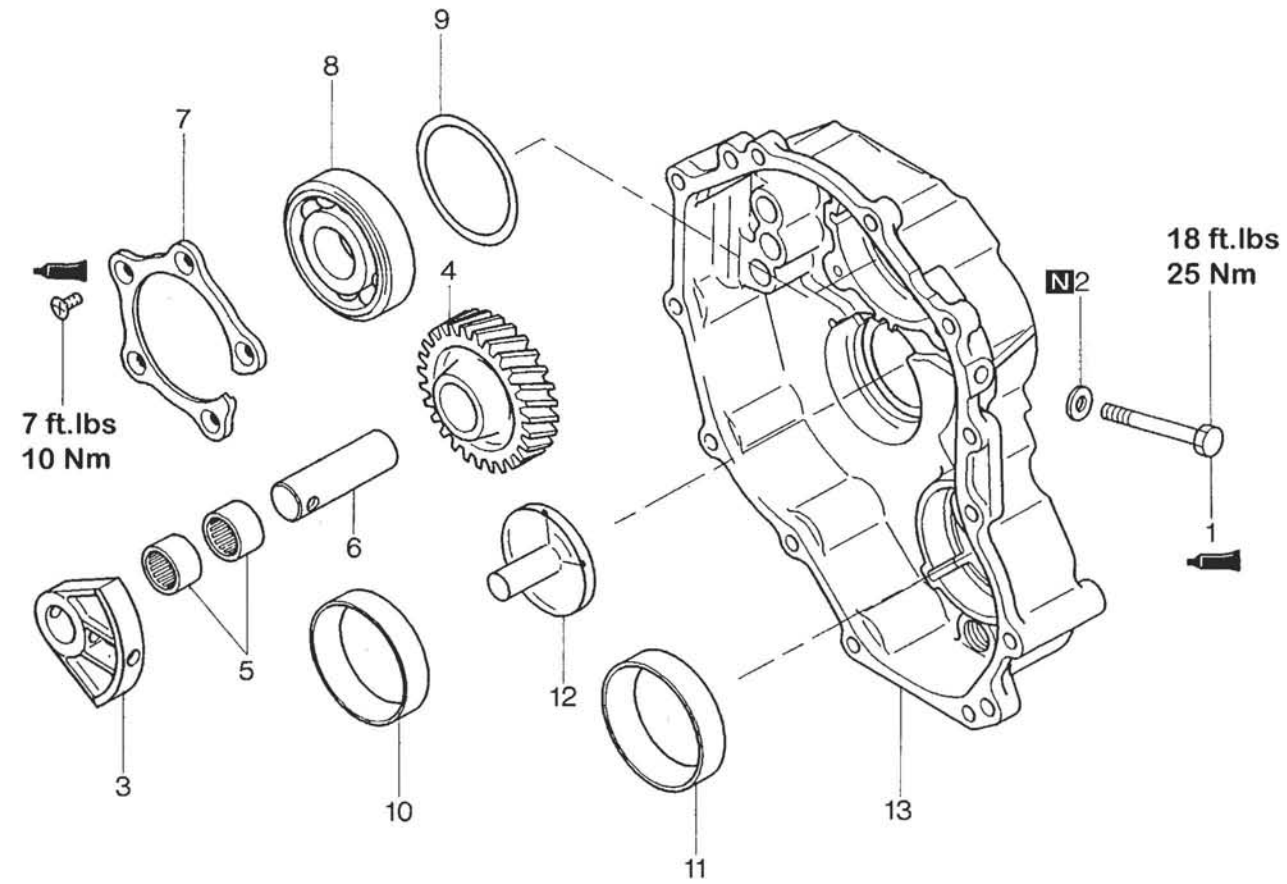
Assembly service points

⇨A⇦ **Installation of inner bearing race**



➧B➧ Installation of inner bearing race

Disassembly/ Reassembly W5MG1

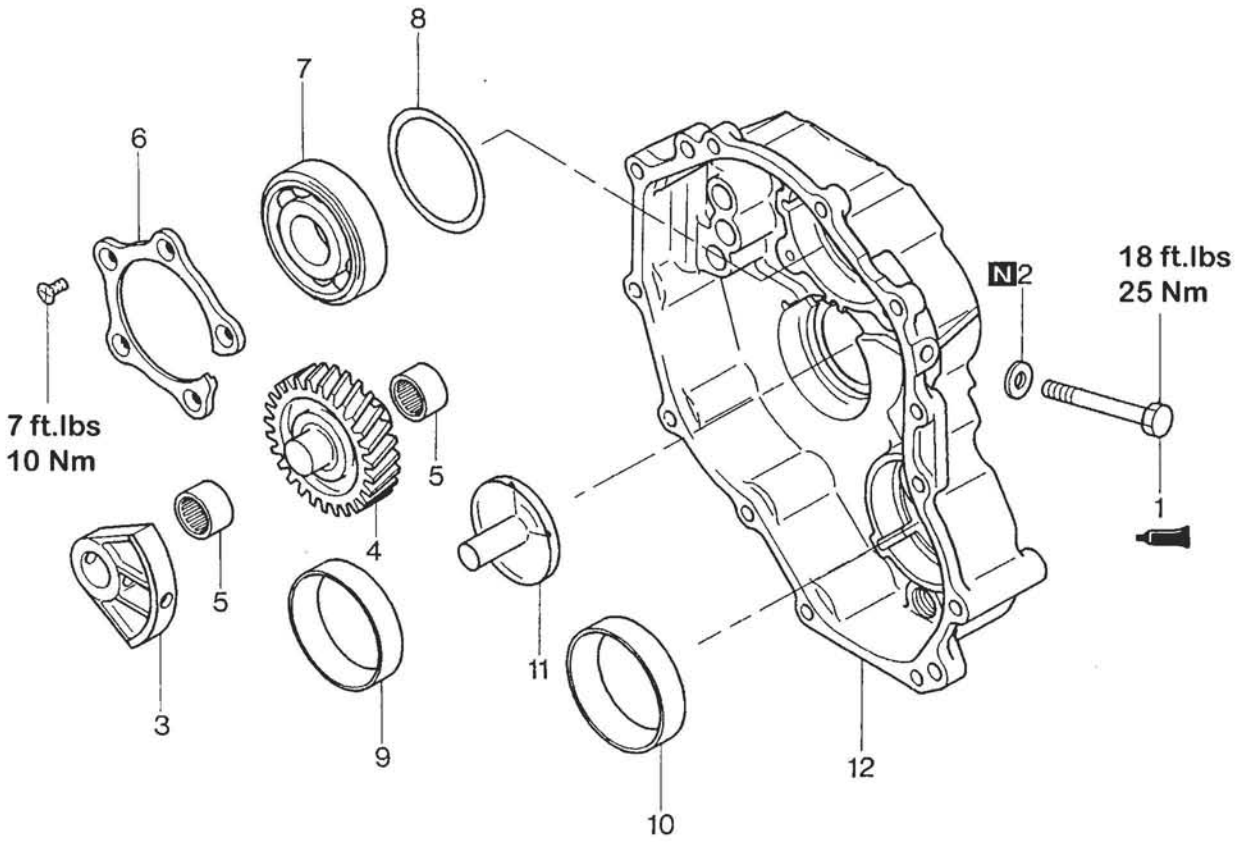


Coat all internal parts in gear oil before reassembly

Disassembly Procedure

- ◗G◖ 1. Reverse shaft carrier bolt
- 2. Washer
- 3. Reverse shaft carrier
- 4. Reverse gear
- 5. Needle bearings
- ◗F◖ 6. Reverse gear shaft
- ◗E◖ 7. Input shaft bearing retainer
- 8. Input shaft bearing
- ◗D◖ 9. Spacer
- ◇A◇◗C◖ 10. Outer bearing race
- ◇B◇◗B◖ 11. Outer bearing race
- ◗A◖ 12. Oil guide
- 13. Rear cover

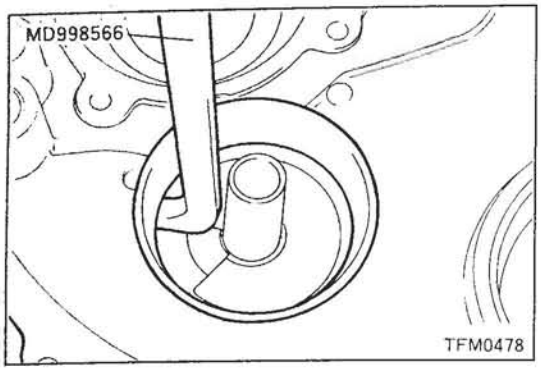
Disassembly/ Reassembly W6MG1



Coat all internal parts in gear oil before reassembly

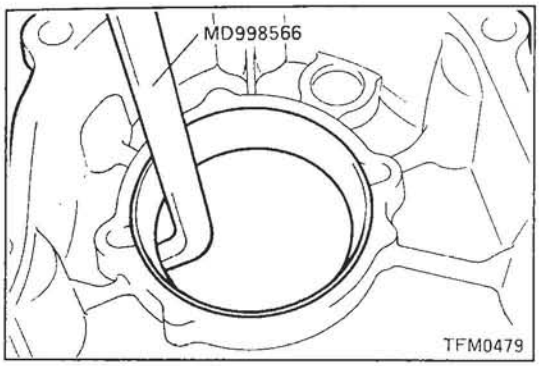
Disassembly Procedure

- ➧G➧ 1. Reverse shaft carrier bolt
- 2. Washer
- 3. Reverse shaft carrier
- 4. Reverse gear
- 5. Needle bearings
- ➧E➧ 6. Input shaft bearing retainer
- 7. Input shaft bearing
- ➧D➧ 8. Spacer
- ⇨A⇦➧C➧ 9. Outer bearing race
- ⇨B⇦➧B➧ 10. Outer bearing race
- ➧A➧ 11. Oil guide
- 12. Rear cover

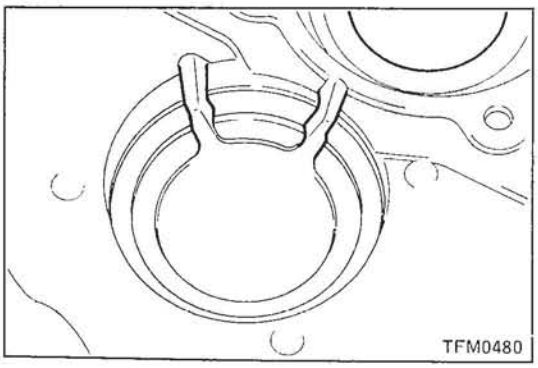


Disassembly service points

⇦A⇨ Removal of outer bearing race



⇦B⇨ Removal of outer bearing race

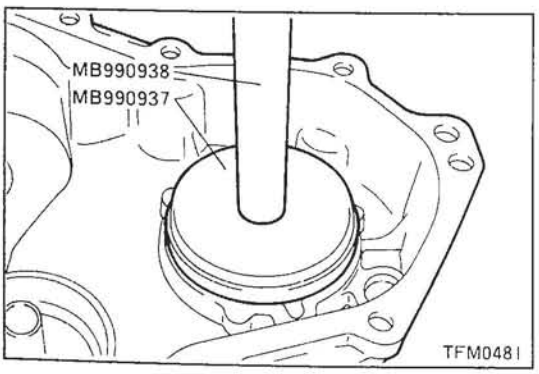


Assembly service points

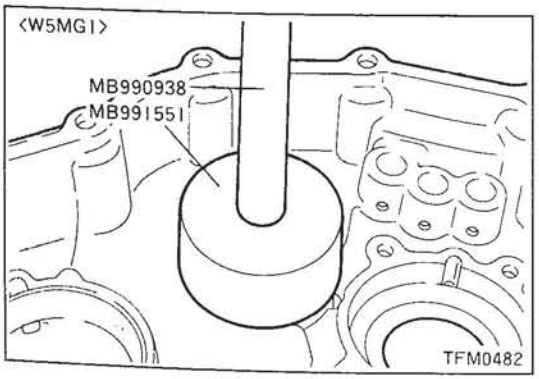
➡A⬅ Installation of oil guide

(1) When installing the oil guide, align the channels of the guide with the notches in the rear cover.

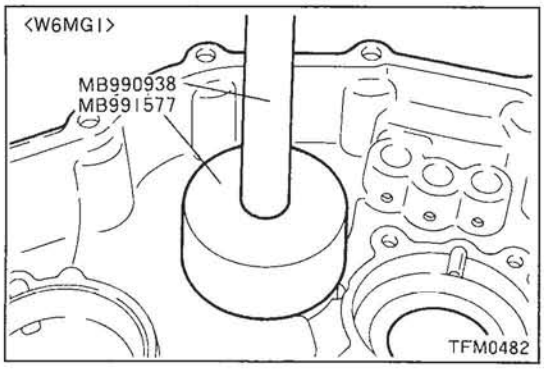
Note:
If the oil guide is damaged or broken, replace it with a new one.

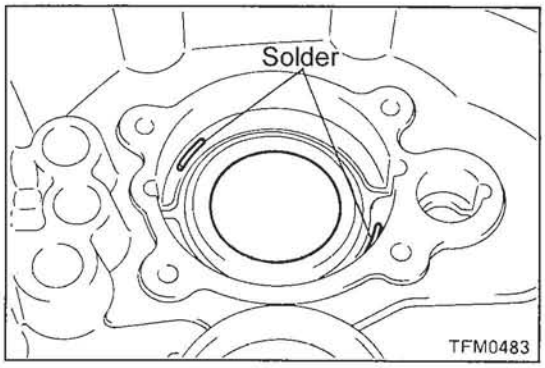


➡B⬅ Installation of outer bearing race



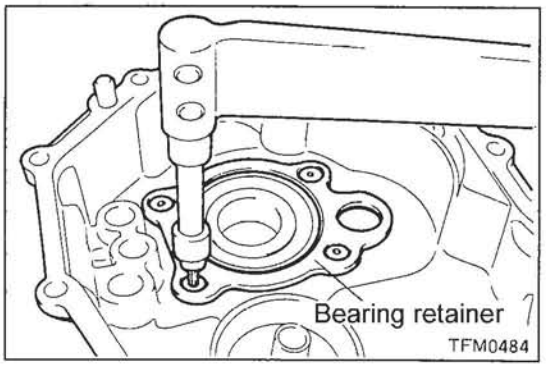
➡C⬅ Installation of outer bearing race



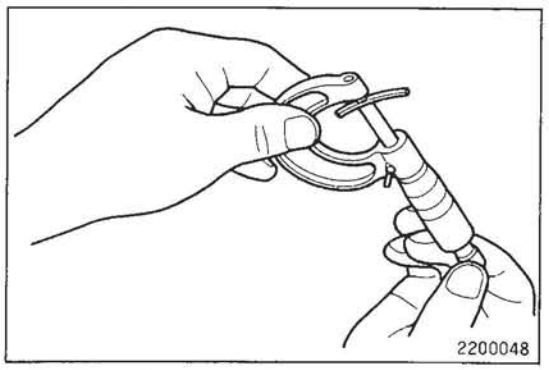


➧D➧ Installation of spacer

(1) Place solder (length approximately 10 mm and diameter approximately 1.6mm) into positions shown in illustration, then install outer bearing race.



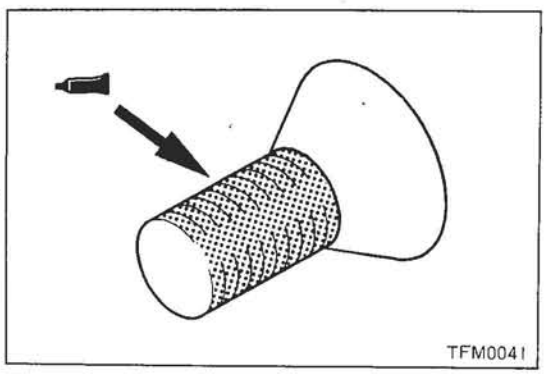
(2) Install the input shaft bearing retainer bolts and tighten to the specified torque.



(3) Remove the bearing and the solder. Measure the thickness of the crushed solder with a micrometer and select and install a spacer of thickness that gives standard preload.

End Play: 0.02 mm - 0.05 mm

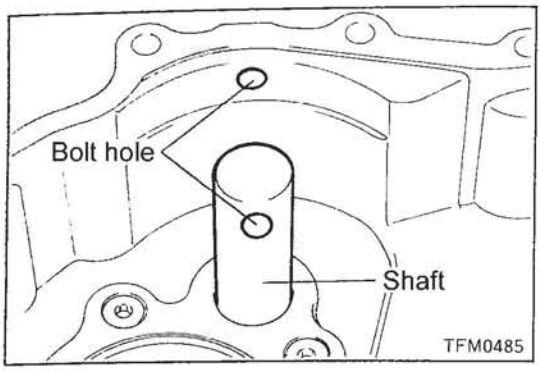
(4) If the solder is not collapsed in step 2, select a solder with a thicker diameter and start over at step 1.



➧E➧ Installation of input shaft bearing retainer

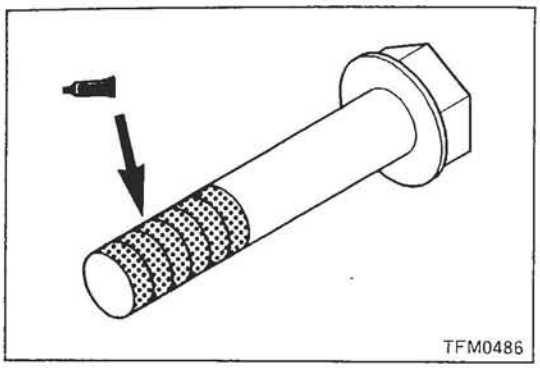
(1) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent



➧F➧ Installation of reverse gear idler shaft

(1) Align the bolt holes as shown in order to install the idler shaft bolt.

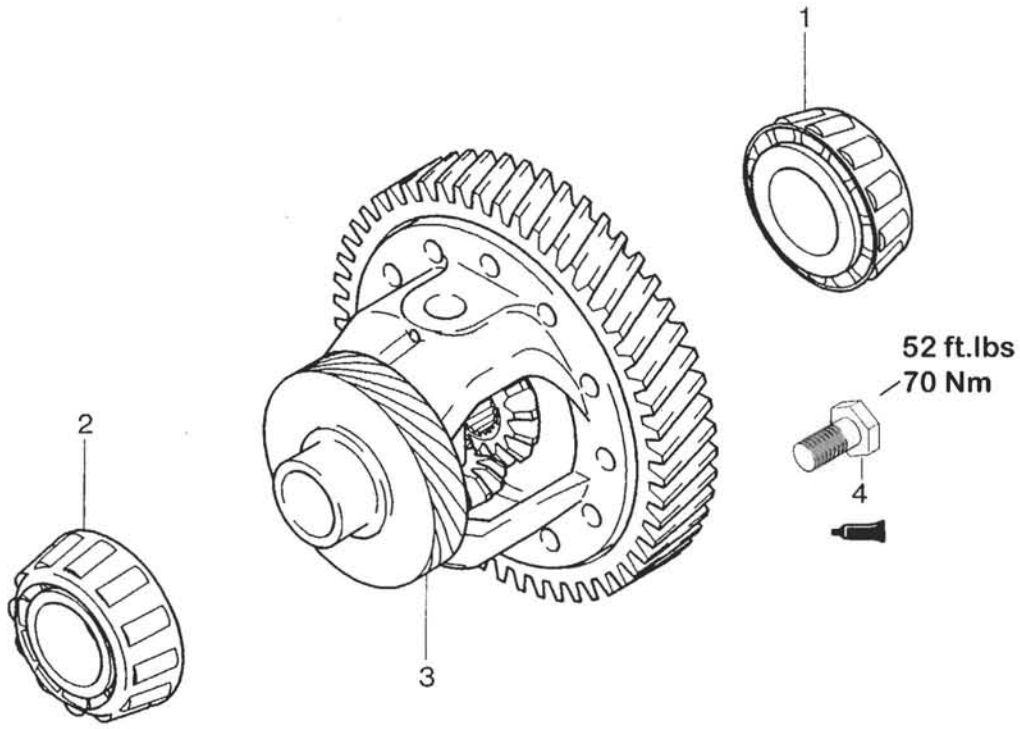


➧G➧ Installation of reverse gear shaft bolt <W5MG1> / Reverse gear carrier bolt <W6MG1>

(1) Apply thread locking compound to the threads of the bolt and tighten to the specified torque.

Note:
Brand: Loc-tite #242, 3M Threadlocker #4170, or equivalent

Disassembly/ Reassembly

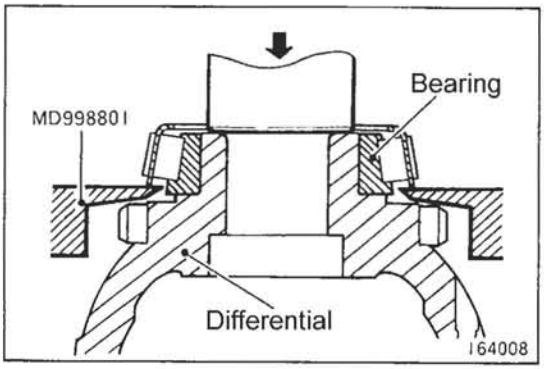


Disassembly Procedure

- ⇦A⇨ ➡B⬅ 1. Inner bearing race
- ⇦A⇨ ➡A⬅ 2. Inner bearing race
- 3. Differential
- 4. Ring gear bolt

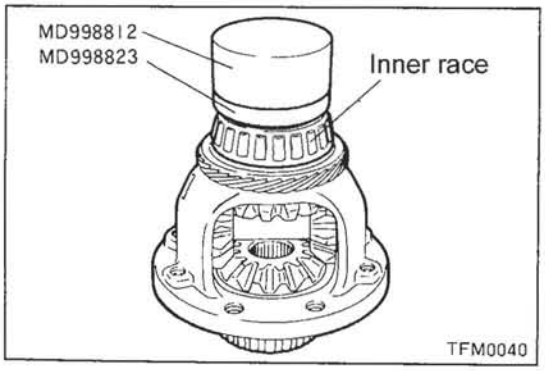
Coat all internal parts in gear oil before reassembly

TFM0393



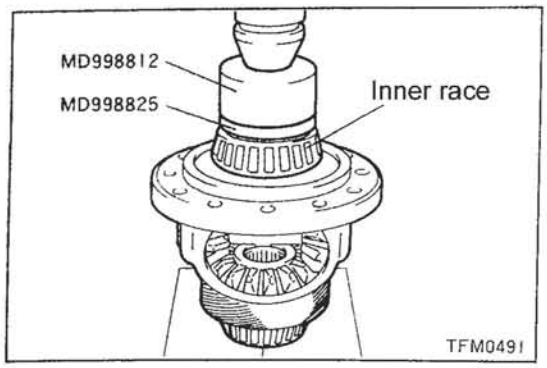
Disassembly service point

⇦A⇨ Removal of inner bearing race



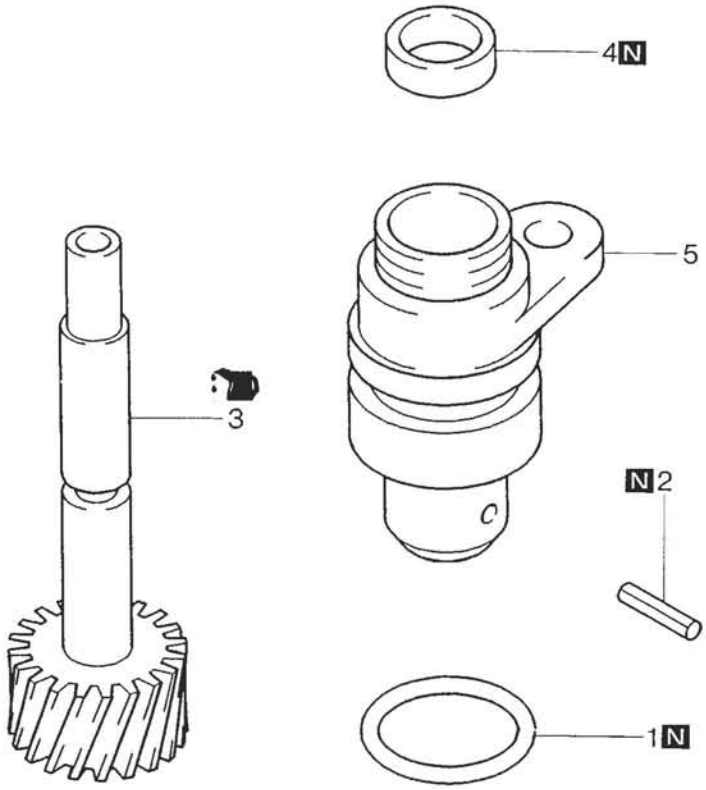
Assembly service point

➡A⬅ Installation of inner bearing race



◆B◆ Installation of inner bearing race

Disassembly/ Reassembly

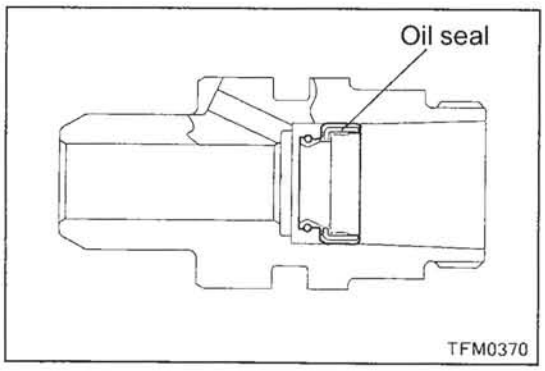


Coat all internal parts in gear oil before reassembly

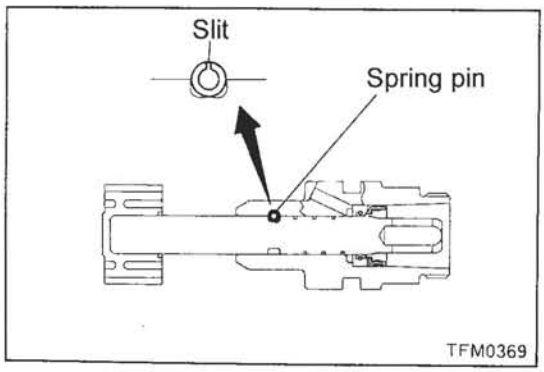
Disassembly Procedure

1. O-Ring
2. Spring pin
3. Speedometer driven gear
4. Oil seal
5. Sleeve

TFM0391



TFM0370



TFM0369

Assembly service points

A Installation of oil seal

(1) Press the oil seal into position as illustrated.

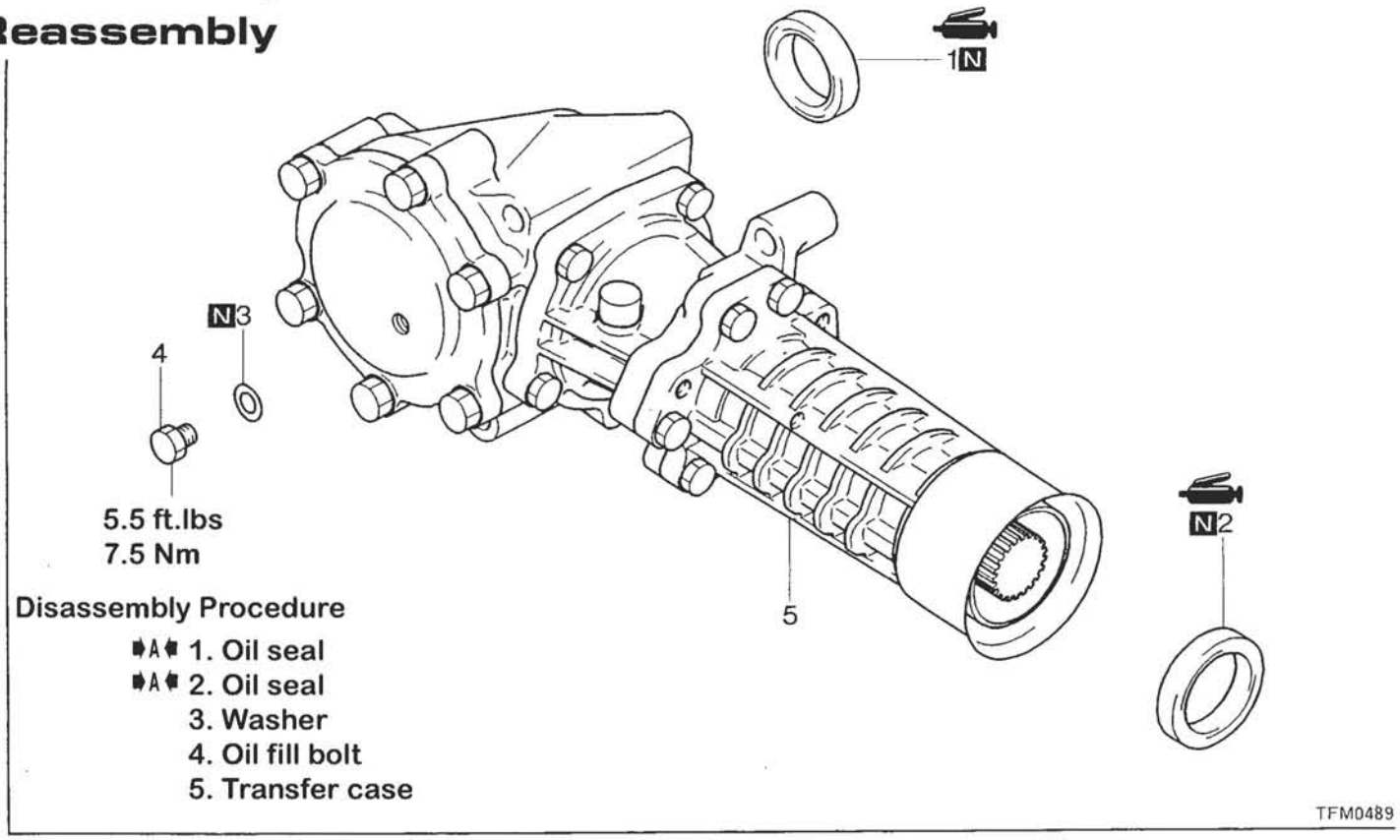
B Installation of speedometer driven gear

(1) Apply gear oil to the shaft of the driven gear during installation.

C Installation of spring pin

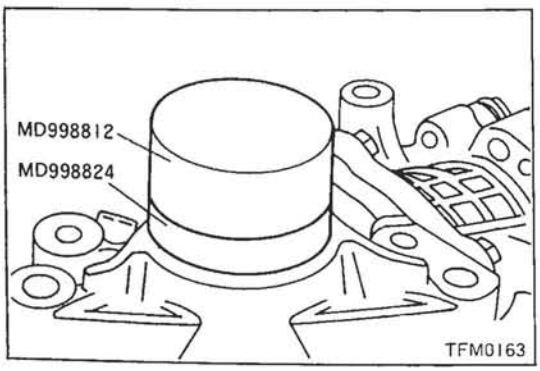
(1) Install the spring pin with the slit facing away from the shaft of the driven gear.

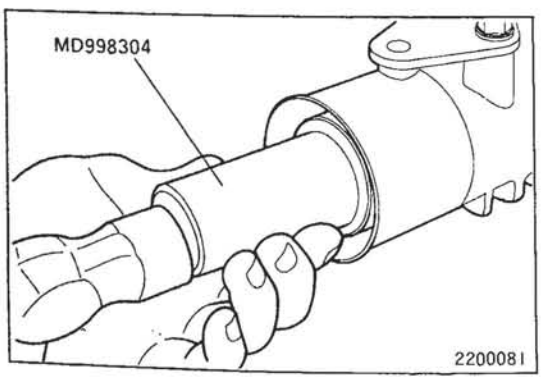
Disassembly/ Reassembly



Disassembly Procedure

- ⬧A⬧ 1. Oil seal
- ⬧A⬧ 2. Oil seal
- 3. Washer
- 4. Oil fill bolt
- 5. Transfer case





Assembly service points

⬧A⬧ Installation of oil seal

(1) After installation of oil seal, fill the lip section with specified grease.

Specified grease:
Molykote TA #1 or #2

DAIMLERCHRYSLER

SAFETY RECALL TO INSPECT AND REPAIR YOUR VEHICLE'S TRANSFER CASE

Dear Stealth R/T Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

DaimlerChrysler Corporation has determined that a defect, which relates to motor vehicle safety, exists in some **1991 through 1996 model year Dodge Stealth R/T Twin Turbo All Wheel Drive vehicles.**

The problem is... **Oil leakage from the transfer case on your Stealth** (identified on the enclosed form) **may cause the transfer case to fail. This could cause the wheels to lock up and result in an accident without warning.**

What DaimlerChrysler and your dealer will do... **DaimlerChrysler will repair your vehicle free of charge (parts and labor).** To do this, your dealer will inspect the transfer case for indications of oil leakage. Vehicles that have no oil leakage will have the transfer case oil changed. Vehicles that have oil leakage will have the transfer case resealed or replaced if necessary. The inspection and oil change will take about ½ hour to complete. Resealing or replacing the transfer case will require another 1-2 hours. However, additional time may be necessary depending on how dealer appointments are scheduled and processed.

What you must do to ensure your safety...

- Simply **contact your dealer** right away to schedule a service appointment. Ask the dealer to hold the parts for your vehicle or to order them before your appointment.
- **Bring the enclosed form with you to your dealer.** It identifies the required service to the dealer.

If you need help... If you have questions or concerns which the dealer is unable to resolve, please contact the DaimlerChrysler Customer Assistance Center at 1-800-853-1403. A representative will assist you.

If you have already experienced the problem described above and have paid to have it repaired, you may send your original receipts and/or other adequate proof of payment to the following address for reimbursement: DaimlerChrysler Customer Assistance Center, P.O. Box 1040, St. Charles, MO 63302-1040, Attention: Reimbursement.

If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, DC 20590, or call the toll-free Auto Safety Hotline at 1-888-327-4236.

We're sorry for any inconvenience, but we are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Services Field Operations
DaimlerChrysler Corporation
B17

Buckle up for Safety

DAIMLERCHRYSLER

November 2002

Dealer Service Instructions for:

Safety Recall No. B17 – Transfer Case

Models

1991-1996 (B7) Dodge Stealth R/T Twin Turbo All Wheel Drive (AWD)

IMPORTANT: Some of the involved vehicles may be in dealer used vehicle inventory. Dealers must complete this recall service on these vehicles before retail delivery. Dealers should also perform this recall on vehicles in for service. Involved vehicles can be determined by using the DIAL VIP System.

Subject

Oil leakage from the transfer case on about 9,100 of the above vehicles may cause the transfer case to fail. This could cause the wheels to lock up and result in an accident without warning.

Repair

The transfer case must be inspected. If the transfer case is not leaking, the transfer case oil must be changed. If the transfer case is leaking, it must be resealed. If the transfer case is cracked or if the internal gears are damaged, then the transfer case must be replaced.

Alternate Transportation

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if inspection determines that transfer case replacement is required and the vehicle must be held overnight.

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Parts Information

A. Transfer Case Seal Package:

Part Number	Description
CBATB170	**Oil Seal Repair Kit**

Each package contains the following components:

Quantity	Description
1	Input Shaft Seal
1	Output Shaft Seal
2	Gear Housing-to-Adapter O-Rings
1	Gear Housing Cover O-Ring
1	Input Shaft Seal Spacer
2	Filler/Drain Plug Gaskets
3	Exhaust Pipe Gaskets
4	Exhaust Pipe Nuts

Each dealer to whom vehicles in the recall were invoiced will receive enough Seal Packages to service about 10% of those vehicles.

B. Transfer Case:

Due to the small number of involved vehicles expected to require **transfer case replacement**, no parts will be distributed initially. **Transfer cases should be ordered only after inspection determines that replacement is required.** ***Very few vehicles are expected to require transfer case replacement.*** **Inspect the current transfer case serial number to ensure the correct replacement part is ordered. The serial number is located on the bottom of the transfer case extension housing.**

Transaxle Type	Vehicle Model Year	Transfer Case Serial Number	Transfer Case Part Number
5-Speed	1991, 1992 (built through 10/15/91)	Mxxxxxxx	CBATB171
5-Speed	1992 (built after 10/15/91), 1993	Nxxxxxxx	CBATB172
6-Speed	1994, 1995, 1996	Pxxxxxxx	CBATB173

Each package contains a transfer case, two exhaust gaskets and four nuts.

IMPORTANT: The P/N CBATB171 5-Speed Transfer Case will not be available until late-December, 2002.

Service Procedure

A. Inspect and Seal Transfer Case:

1. Raise vehicle on an appropriate hoist.
2. Inspect the transfer case for indications of oil leakage.
   - If evidence of oil leakage is noted, continue with **Step 3.**
   - **If NO oil leakage is noted:**
     a. Remove the transfer case breather (Figure 1).
     b. Remove the transfer case filler plug.
     c. Remove the transfer case drain plug and drain the fluid from the transfer case (Figure 1).
     d. Clean the drain plug and then install it into the transfer case. Tighten the drain plug to 300 in-lbs (35 N·m).

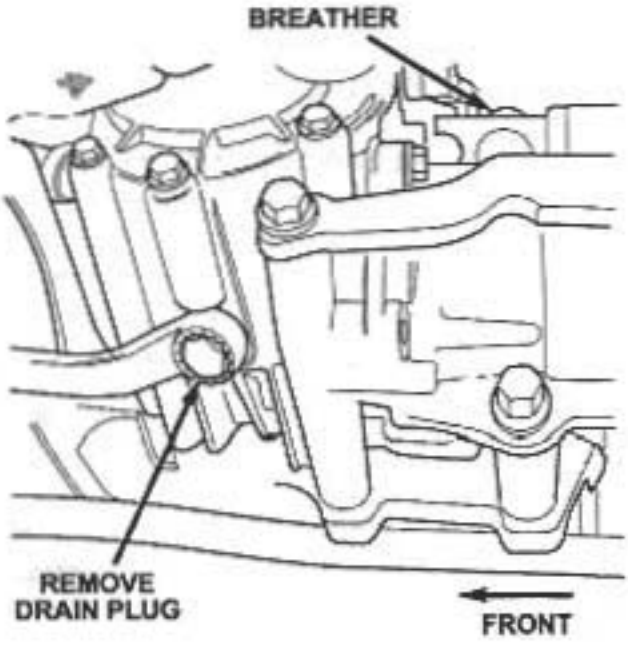

Figure 1

     e. Fill the transfer case with Mopar 75W-90/GL-5 Gear Lube (Mopar P/N 05010320AA).

NOTE: 5-speed transaxle vehicles require 8.5 oz. (250 cc) of gear lube. 6-speed transaxle vehicles require 18.5 oz. (550 cc) of gear lube.

WARNING: Overfilling the transfer case can cause extensive powertrain damage. Make sure that the transfer case is filled to the correct level.

     f. Clean the filler plug and then install it into the transfer case. Tighten the filler plug to 300 in-lbs (35 N·m).

Service Procedure (Continued)

g. Clean the transfer case breather and seat, apply Mopar Weatherstrip Adhesive (Mopar P/N 04773774 or equivalent) around the breather hole and then install the breather.

h. Lower the vehicle and return it to the customer, no further action is necessary.

3. Inspect the transfer case for signs of any cracks or breaks. If cracks or breaks are found, continue with **Section B. – Replace Transfer Case.** If no cracks or breaks are found continue with Step 4.

4. Remove the transfer case filler plug.

5. Remove the transfer case drain plug and drain the fluid from the transfer case (Figure 1).

6. Remove the two nuts that secure the exhaust pipe to the rear turbocharger-mounted catalytic converter (Figure 2). Discard the nuts.

7. Remove the two nuts that secure the front catalytic converter to the front turbocharger outlet (Figure 2). Discard the nuts.

8. Disconnect the front exhaust pipe support (Figure 2). Disconnect the front exhaust pipe and temporarily support the front exhaust pipe with a wire or bunjee cord.

9. Remove and discard the two exhaust gaskets.

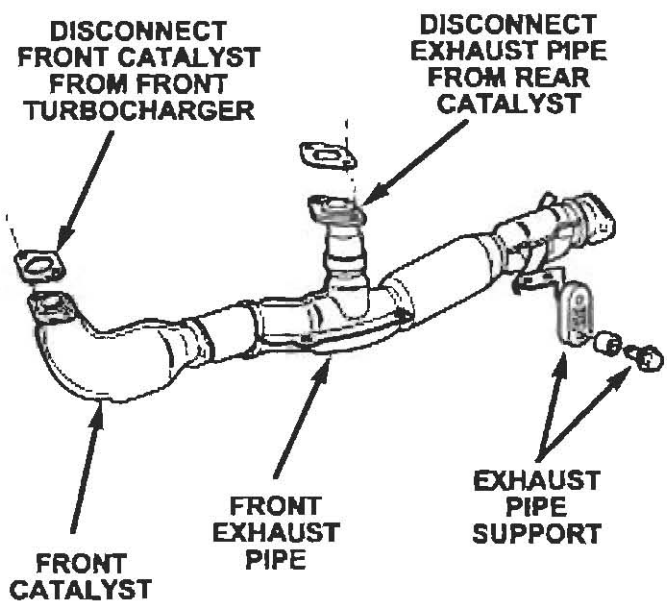
DISCONNECT FRONT CATALYST FROM FRONT TURBOCHARGER
DISCONNECT EXHAUST PIPE FROM REAR CATALYST
FRONT CATALYST
FRONT EXHAUST PIPE
EXHAUST PIPE SUPPORT

Figure 2

Service Procedure (Continued)

10. Remove the five bolts that secure the transfer case to the transaxle (Figure 3).

    NOTE: The upper mounting bolt may be hidden from view.

11. Separate the transfer case from the transaxle. If necessary, tap the transfer case with a plastic hammer to loosen it

12. Remove the transfer case from the transaxle by tilting the case downward, then disconnect the transfer case from the drive shaft and set it on a clean work surface.

    IMPORTANT: Do NOT allow the drive shaft to hang as this could damage the universal joint or bend the shaft. Support the drive shaft with a wire or bunjee cord.

13. Remove and discard the aluminum gaskets from the transfer case filler and drain plugs. Clean the filler and drain plugs.

14. Remove the transfer case breather (Figure 4). Clean the breather and set it aside for later re-use.

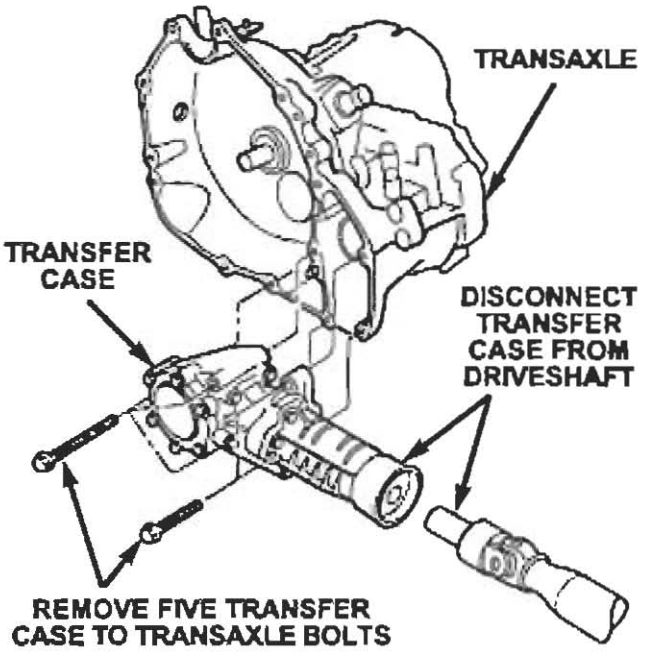

Figure 3

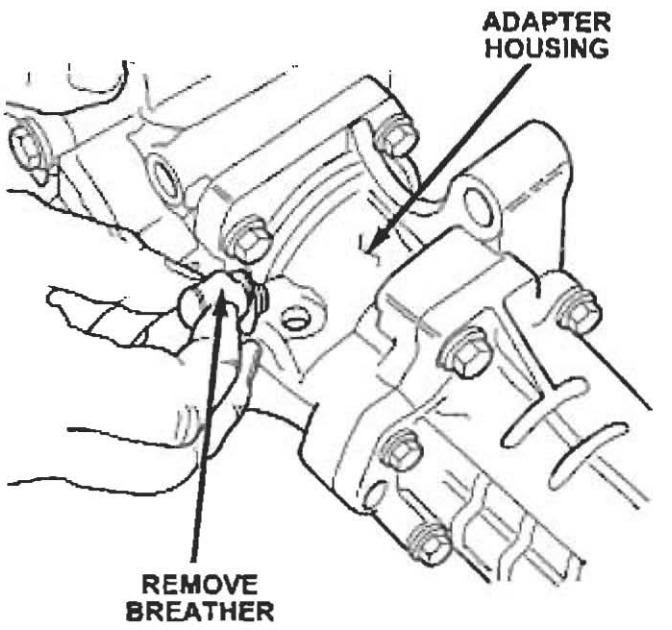

Figure 4

Service Procedure (Continued)

15. Remove the bolts that secure the transfer case gear housing to the adapter housing (Figure 5).

    NOTE: There are five (5) bolts on 5-speed equipped vehicles and seven (7) bolts on 6-speed equipped vehicles.

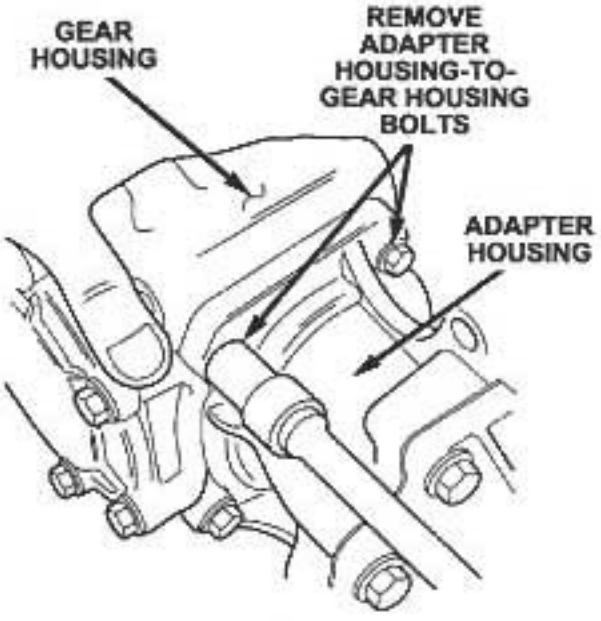

Figure 5

16. Position the transfer case vertically on a soft pad and separate the gear housing from the adapter housing by tapping the gear housing with a plastic hammer (Figure 6).

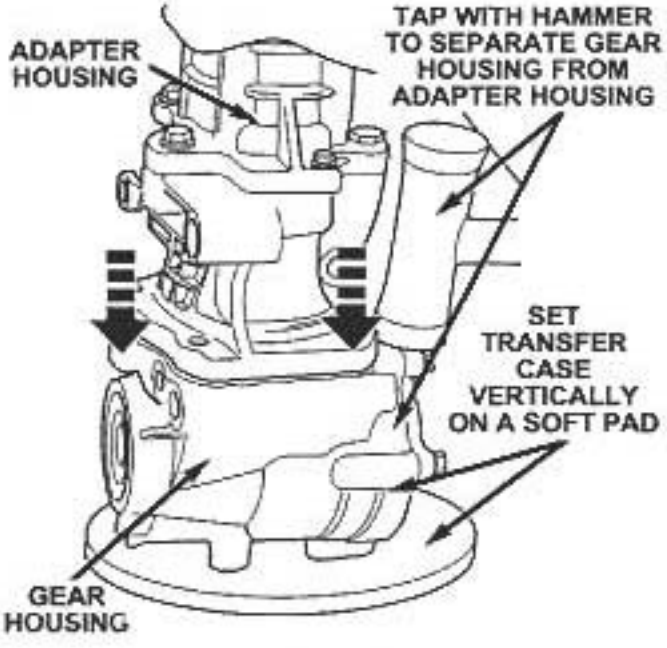
ADAPTER HOUSING
TAP WITH HAMMER TO SEPARATE GEAR HOUSING FROM ADAPTER HOUSING
SET TRANSFER CASE VERTICALLY ON A SOFT PAD
GEAR HOUSING

Figure 6

Service Procedure (Continued)

NOTE: Be careful to not bend or damage the oil guide pipe when separating the housings on 6-speed equipped vehicles (Figure 7).

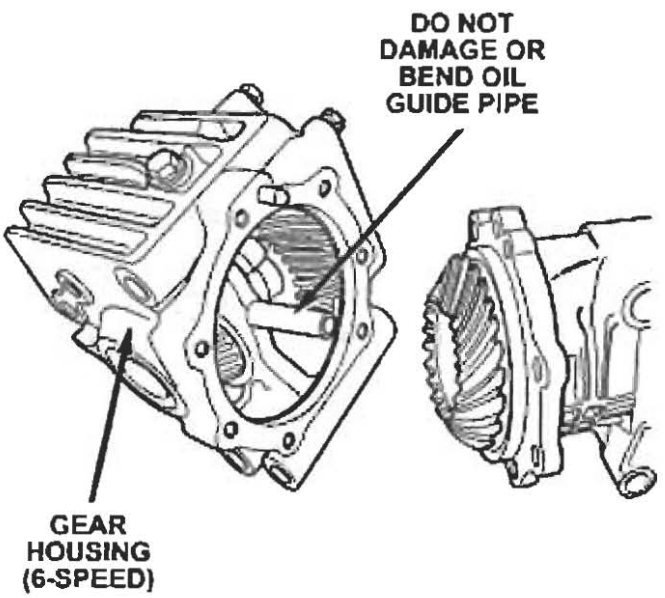

Figure 7

17. While holding the gear housing, rotate the input gear and note its condition (Figure 8).

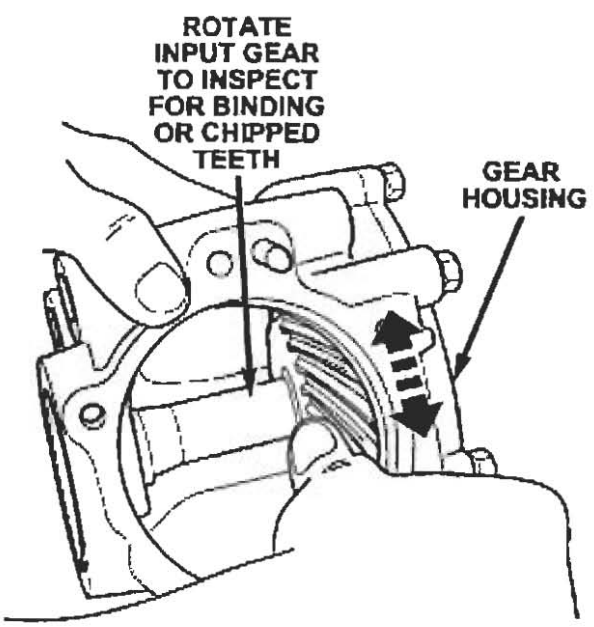

Figure 8

Service Procedure (Continued)

18. While holding the adapter housing, rotate the output gear and note its condition (Figure 9).

19. **If either the input gear or output gear do not rotate smoothly or appear to be damaged,** then the transfer case must be replaced. Continue with **Step 10 of Section B. – Replace Transfer Case.**

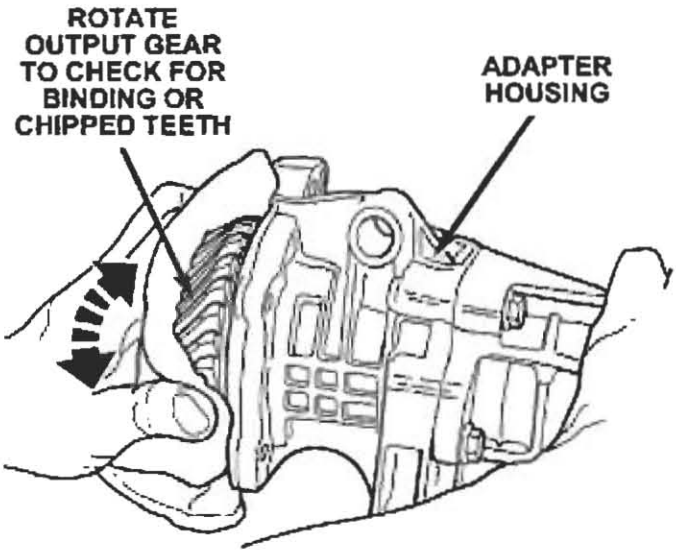

Figure 9

20. Remove the gear housing-to-adapter housing O-ring (Figure 10). Use care to not damage the O-ring seat.

    NOTE: The O-ring is located on the adapter housing for 5-speed equipped vehicles and in the gear housing for 6-speed equipped vehicles.

21. Clean the adapter housing flange and O-ring seat (5-speed).

22. Clean the gear housing flange and O-ring seat (6-speed).

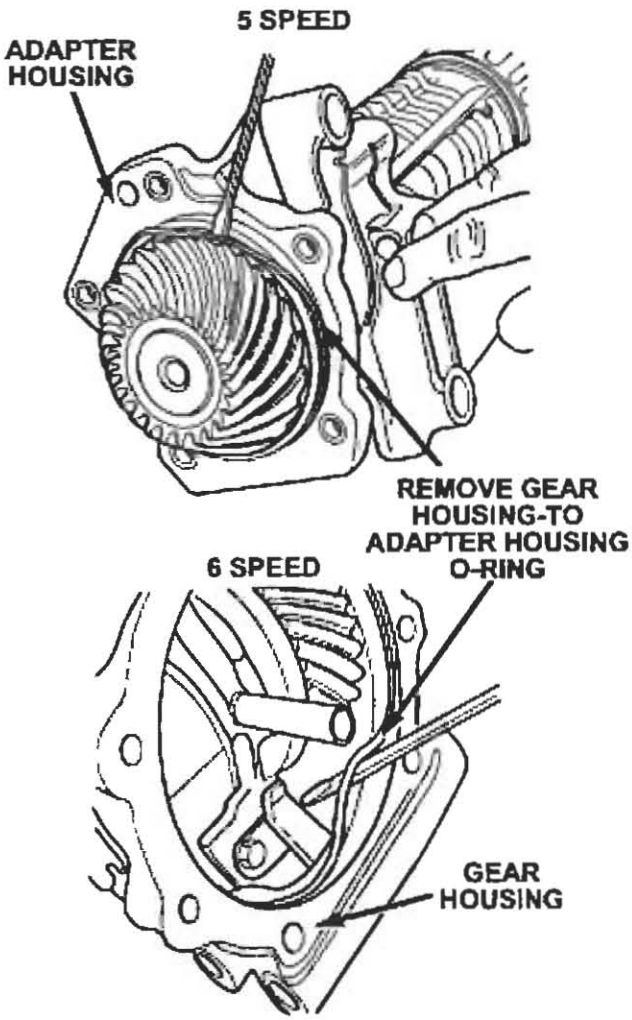

Figure 10

Service Procedure (Continued)

23. Remove the six bolts that secure the gear housing cover to the gear housing (Figure 11).

    IMPORTANT: On 5-speed vehicles, do NOT remove the bolt in the center of the cover (Figure 11).

24. Set the gear housing on the work surface with the cover facing upward.

25. While holding the gear housing, tap one of the cover bolt bosses until the cover has turned sufficiently.

26. Set the gear housing on the work surface with the cover on the side. While holding the gear housing with your thumb in the input gear shaft cavity, tap the gear housing cover with a plastic hammer until it is separated from the housing.

27. Remove the input gear from the gear housing (Figure 12).

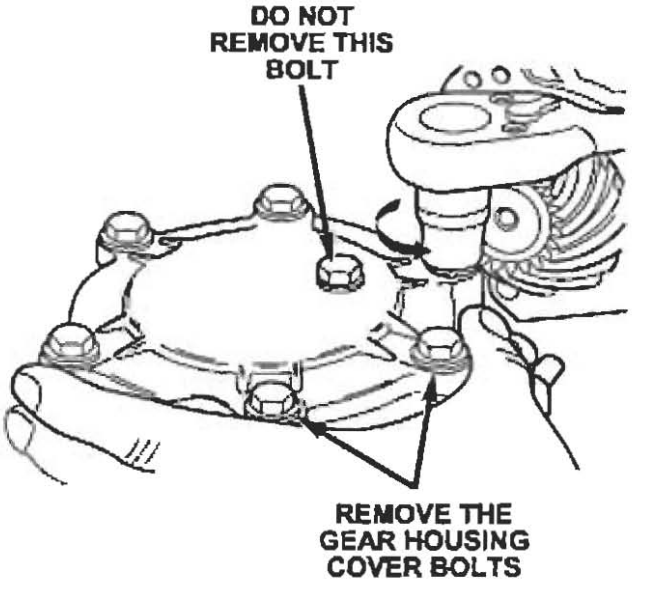

Figure 11 – 5-Speed Vehicle Shown

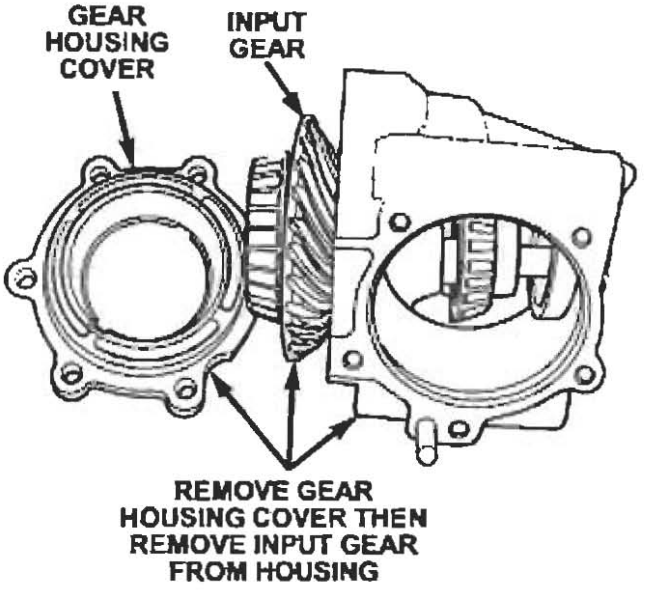

Figure 12

Service Procedure (Continued)

28. Remove the O-ring from the gear housing cover (Figure 13).

    IMPORTANT: Some early-built 5-speed transfer cases do NOT have a cover O-ring.

29. Clean the gear housing cover flange and the cover O-ring seat and surface.

30. Remove any sealant from the gear housing and cover bolt holes.

31. Using a brass drift and a plastic hammer, remove the input shaft seal from the gear housing.

32. Set the adapter housing/extension housing assembly on the work surface with the output shaft facing upward.

33. Carefully remove the output shaft seal. To remove the seal, place a flat bladed screwdriver under the seal with the screwdriver shaft resting on the extension housing cuff. Remove the seal by quickly hitting the screwdriver handle and popping the seal from its seat (Figure 14).

    NOTE: Protect the end of the output shaft by placing a shop rag over it prior to the seal removal.

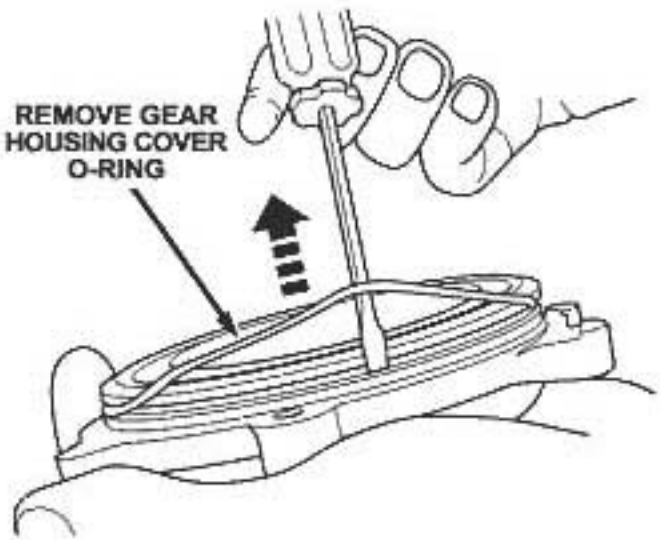

Figure 13

TO REMOVE OUTPUT SHAFT SEAL, PLACE SCREWDRIVER UNDER SEAL AND ACROSS OUTPUT SHAFT, THEN POP SEAL OUT
TO PROTECT OUTPUT SHAFT, COVER WITH SHOP RAG

Figure 14

Service Procedure (Continued)

34. Place the supplied input shaft seal into the seal seat on the input gear housing.

35. **For 5-speed transfer cases:** Use a flat seal installation tool to press the seal into the housing with an arbor press until the seal is flush with the housing surface (Figure 15).

    For 6-speed transfer cases: Use a 36mm socket to press the seal into the housing with an arbor press until the seal contacts the seat (Figure 15).

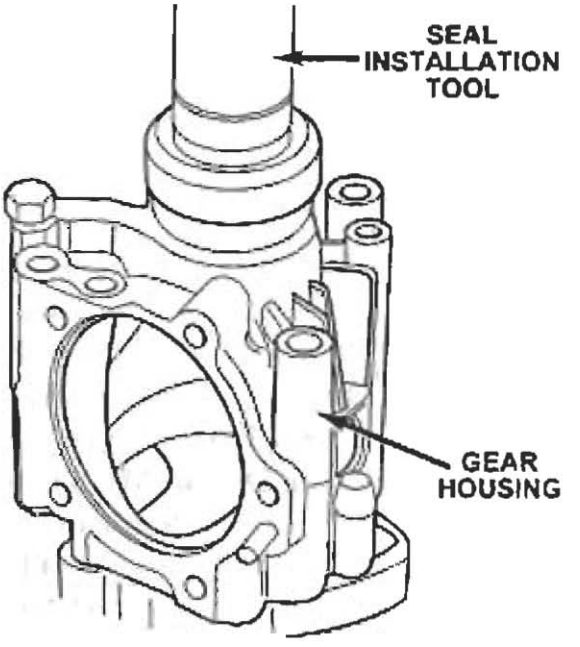

Figure 15

36. **FOR 5-SPEED TRANSFER CASES ONLY**, remove the seal installation tool and place the supplied 2.5 mm spacer on top of the input shaft seal (Figure 16). Place the tool on top of the spacer and press the seal further into the housing with the arbor press until the spacer is flush with the housing surface. Remove the tool and spacer.

37. Lubricate the input shaft seal lip with a small amount of Mopar White Lithium Grease or equivalent.

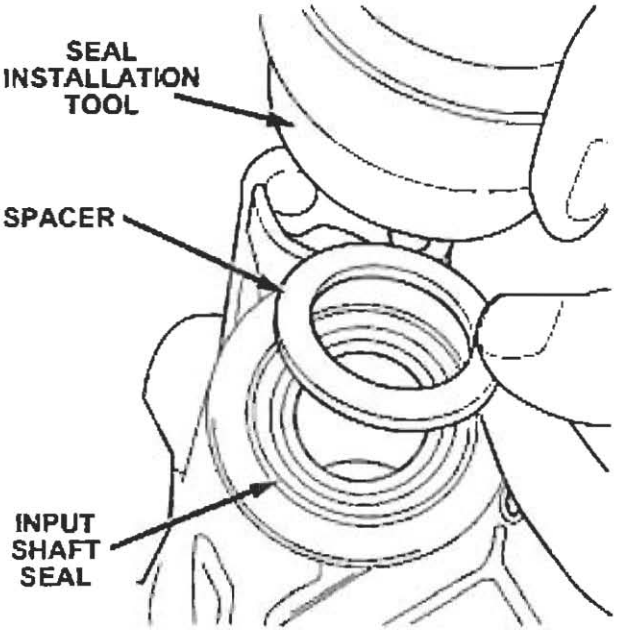

Figure 16

Service Procedure (Continued)

38. Lubricate the supplied gear housing cover O-ring with Mopar 75W-90/GL-5 Gear Lube and then install the O-ring into the groove on the gear housing cover. Make sure that the O-ring is not twisted.

    IMPORTANT: Some early-built 5-speed transfer cases did NOT have a cover O-ring (Figure 17). However, some of these covers do have an O-ring groove. A new cover O-ring MUST be installed if the cover has an O-ring groove. <u>If the cover does NOT have an O-ring groove, DO NOT install a cover O-ring</u>.

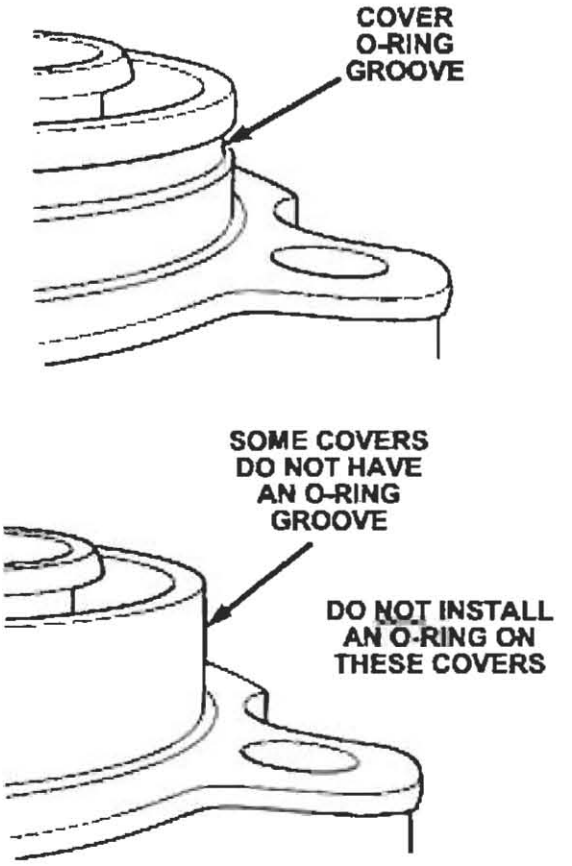

Figure 17

39. Install the input gear into the gear housing by placing the input gear assembly on the work surface with the shaft facing upward and then placing the gear housing over the shaft (Figure 18). Make sure that the shaft slides easily into the input shaft seal and that the seal lip is not twisted.

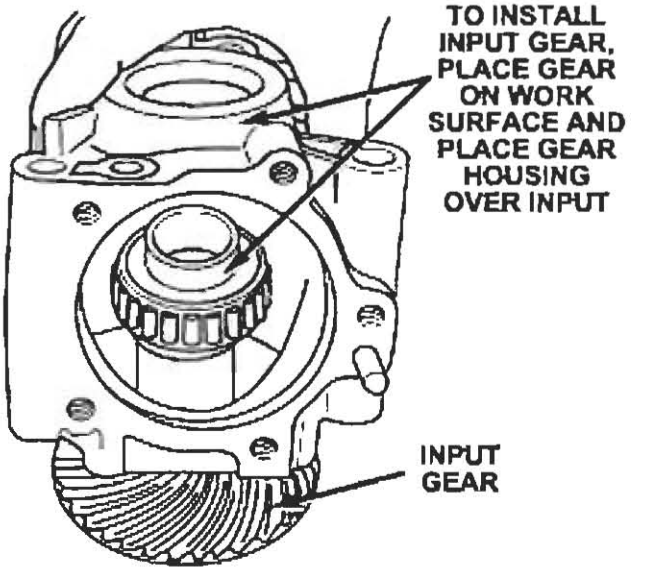

Figure 18

Service Procedure (Continued)

40. Place your thumb into the input shaft opening to hold the gear in position and then turn the gear housing over (Figure 19).

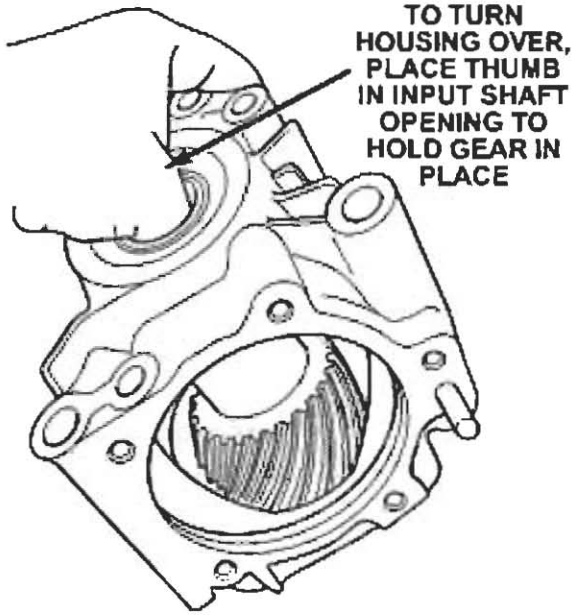

Figure 19

41. Put a bead of sealant (Mopar Axle RTV P/N 05013477AA or equivalent) on the gear housing cover flange (Figure 20).

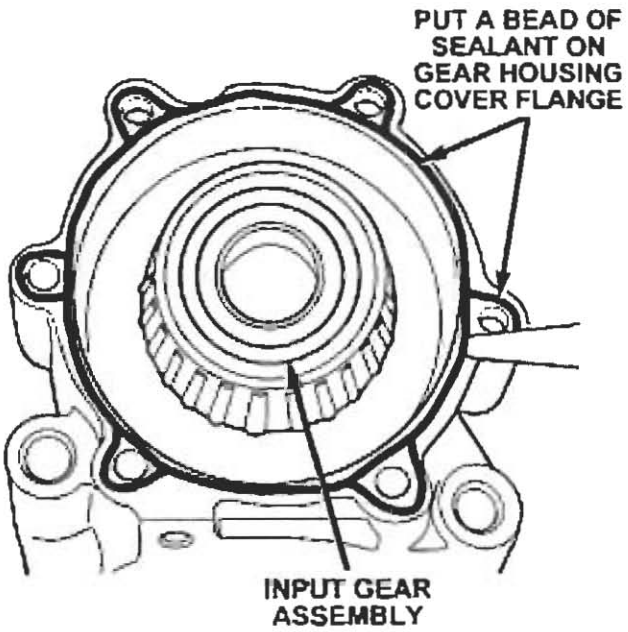

Figure 20

Service Procedure (Continued)

42. Carefully install the gear housing cover onto the gear housing. Position the cover by loosely installing two of the cover bolts (Figure 21) and then seat the cover by tapping it with a plastic hammer or using a press.

43. Remove the two bolts used to position the cover.

44. Apply Mopar Lock & Seal (Mopar P/N 04318031) to the threads of the cover bolts. Install the cover bolts and tighten to 220 in-lbs (25 N·m).

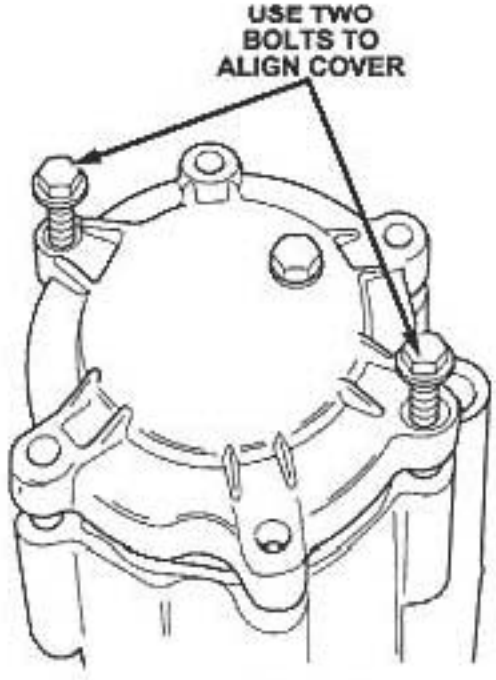

Figure 21

45. Lubricate the supplied gear housing-to-adapter housing O-ring with Mopar 75W-90/GL-5 Gear Lube. Install the O-ring onto the adapter housing (5-speed) or into the gear housing (6-speed) (Figure 10). Make sure that the O-ring is not twisted.

IMPORTANT: There are two different gear housing-to-adapter housing O-rings contained in the repair kit. Make sure that the correct O-ring is used for the vehicle being serviced. Refer to the Seal Repair Kit packaging for correct O-ring identification.

Service Procedure (Continued)

46. **FOR 6-SPEED TRANSFER CASES ONLY:** Put a bead of sealant (Mopar Axle RTV P/N 05013477AA or equivalent) on the gear housing flange (Figure 22).

    IMPORTANT: Do NOT use sealant on the 5-speed gear housing-to- adapter housing joint.

47. Place the adapter housing assembly vertically on the work surface and then install the gear housing assembly onto the adapter housing. Seat the gear housing by lightly tapping it with a plastic hammer.

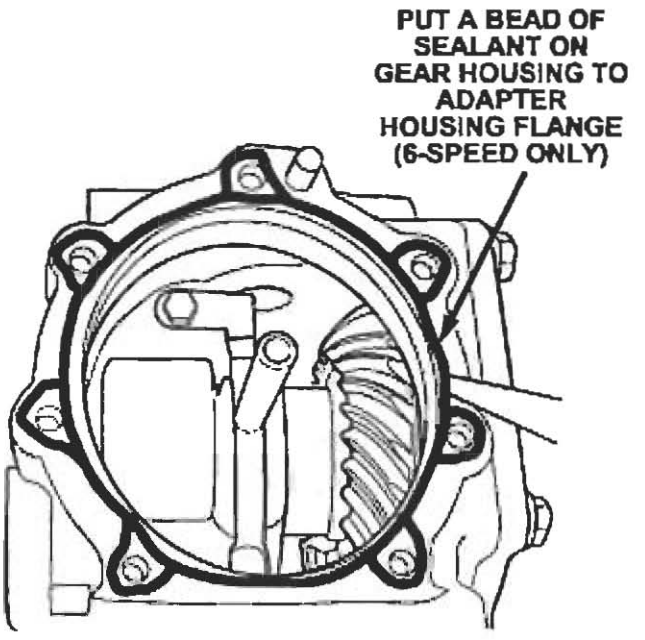

Figure 22

48. Apply Mopar Lock & Seal (Mopar P/N 04318031) to the threads of the adapter housing-to-gear housing bolts. and then install the bolts and tighten to 220 in-lbs (25 N·m).

    IMPORTANT: For 6-speed transfer cases, the bolts are not all the same length. Make sure that the one longer bolt is used in the position with the raised boss.

49. Place the transfer case on the work surface with the output shaft facing upward.

50. Place the supplied output shaft seal into the extension housing seat.

Service Procedure (Continued)

51. Using a 36mm socket, press the output shaft seal into the housing with an arbor press until the new seal contacts the seal seat (Figure 23).

52. Coat the output shaft seal with a small amount of Mopar 75W-90/GL-5 Gear Lube.

53. Install a new aluminum gasket onto the drain plug. Install the drain plug into the transfer case and tighten the plug to 300 in-lbs (35 N·m).

54. Clean the transfer case breather and seat, apply Mopar Weatherstrip Adhesive (Mopar P/N 04773774 or equivalent) around the breather hole and then install the breather.

55. Install a new aluminum gasket onto the filler plug. Install the filler plug into the transfer case and tighten the plug to 300 in-lbs (35 N·m).

56. Fill the transfer case through the output shaft opening with Mopar 75W-90/GL-5 Gear Lube (Mopar P/N 05010320AA) (Figure 24).

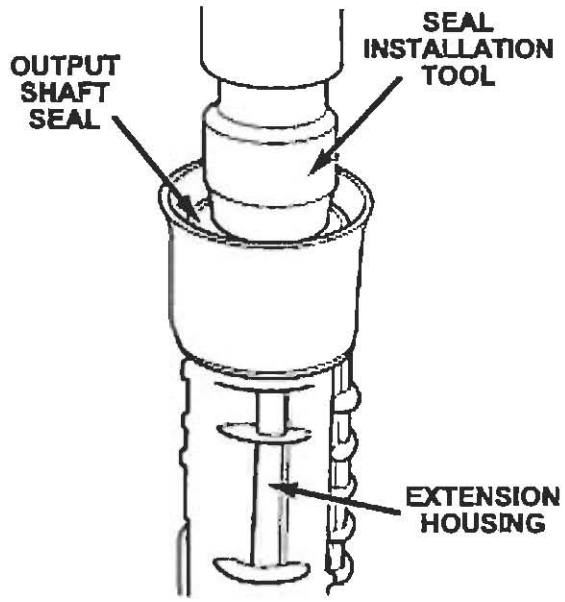

Figure 23

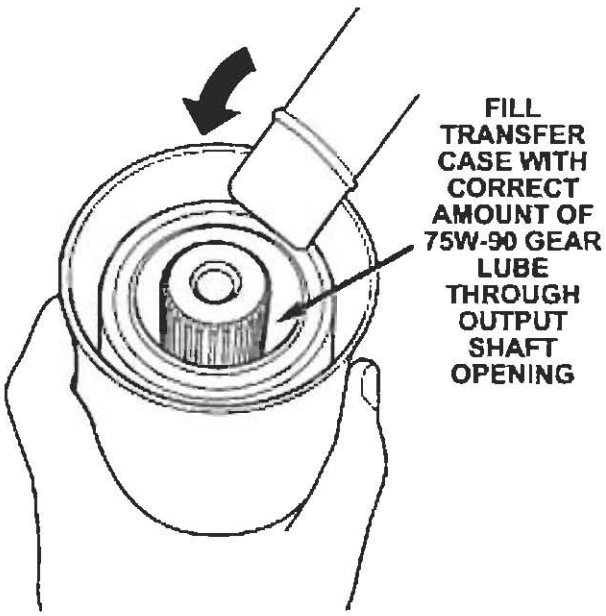

Figure 24

NOTE: 5-speed transfer cases require 9.25 oz. (270 cc) of gear lube. 6-speed transfer cases require 20.25 oz. (600 cc) of gear lube.

WARNING: Overfilling the transfer case can cause extensive powertrain damage. Make sure that the transfer case is filled to the correct level.

Service Procedure (Continued)

57. Coat the transfer case input shaft and output shaft splines with Mopar White Lithium Grease (Mopar P/N 04318066) or equivalent.

58. Coat the transaxle output shaft and the driveshaft splines with Mopar White Lithium Grease or equivalent.

59. Insert the driveshaft into the transfer case and then mount the transfer case onto the transaxle (Figure 3).

60. Install the transfer case mounting bolts and tighten the mounting bolts to 65 ft-lbs (87 N·m) (Figure 3). Remove the temporary driveshaft support.

61. Remove the temporary exhaust pipe support and then using the supplied exhaust gaskets and nuts, reconnect the front exhaust pipe to the front turbocharger outlet and rear catalytic converter (Figure 2). Tighten the exhaust nuts to 37 ft-lbs (50 N·m).

62. Connect the front exhaust pipe support (Figure 2).

63. Lower the vehicle.

64. Test drive the vehicle and verify that there are no leaks.

Service Procedure (Continued)

B. Replace Transfer Case:

NOTE: Only transfer cases that are cracked or that have an input and/or output gear that does NOT turn smoothly or that has damaged teeth, as determined by the inspection in Section A, require replacement. Very few vehicles are expected to require transfer case replacement.

1. Remove the transfer case filler plug.
2. Remove the transfer case drain plug (Figure 25) and drain the fluid from the transfer case.
3. Remove the two nuts that secure the exhaust pipe to the rear turbocharger-mounted catalytic converter (Figure 26). Discard the nuts.
4. Remove the two nuts that secure the front catalytic converter to the turbocharger outlet (Figure 26). Discard the nuts.
5. Disconnect the front exhaust pipe support (Figure 26). Disconnect the front exhaust pipe and temporarily support the front exhaust pipe with a wire or bunjee cord.
6. Remove and discard the two exhaust gaskets.

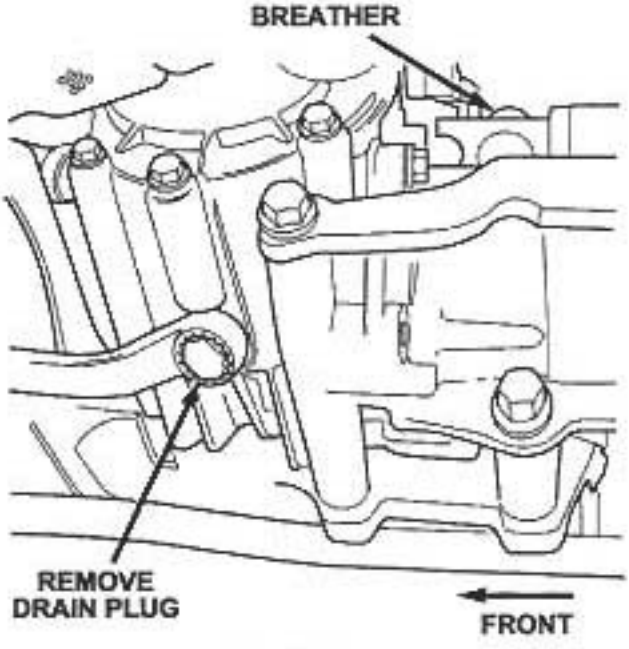

Figure 25

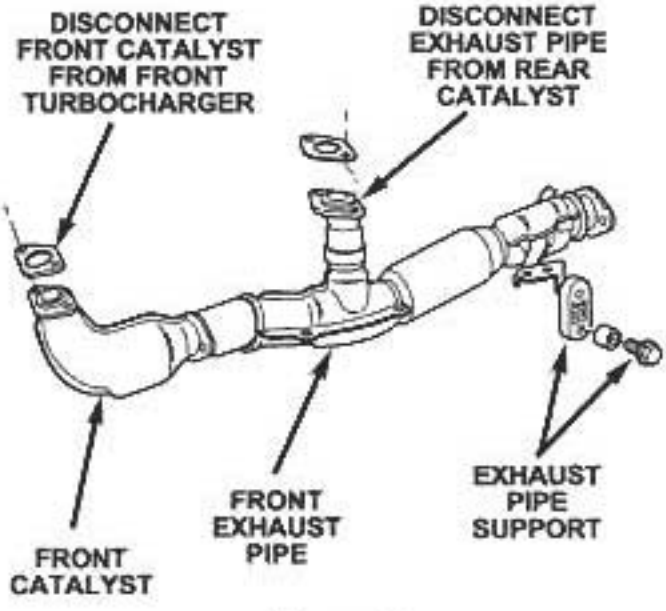
DISCONNECT FRONT CATALYST FROM FRONT TURBOCHARGER
DISCONNECT EXHAUST PIPE FROM REAR CATALYST
FRONT CATALYST
FRONT EXHAUST PIPE
EXHAUST PIPE SUPPORT

Figure 26

Service Procedure (Continued)

7. Remove the five bolts that secure the transfer case to the transaxle (Figure 27).

   NOTE: The upper mounting bolt may be hidden from view.

8. Separate the transfer case from the transaxle. If necessary, tap the transfer case with a plastic hammer to loosen it.

9. Remove the transfer case from the transaxle by tilting the case downward, then disconnect the transfer case from the drive shaft (Figure 27). Set the transfer case aside for return to the Warranty Material Return Center.

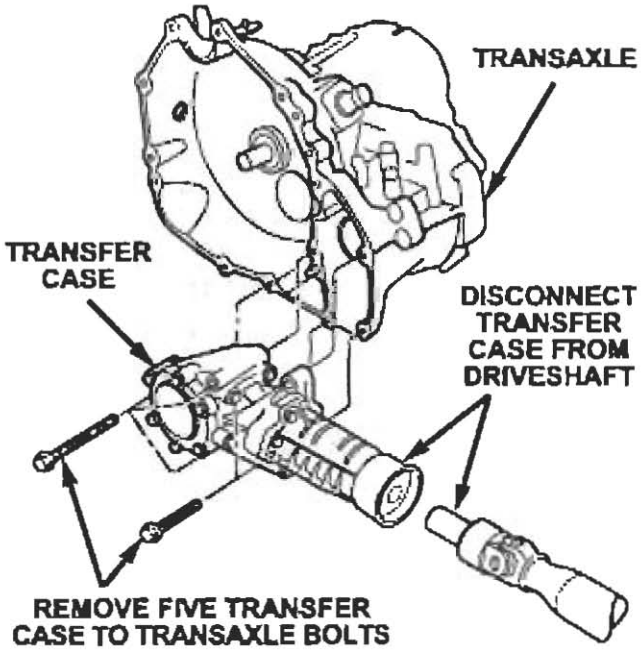

Figure 27

IMPORTANT: Do NOT allow the drive shaft to hang as this could damage the universal joint or bend the shaft. Support the drive shaft with a wire or bunjee cord.

10. **For vehicles equipped with a 5-speed transfer case,** transfer the extension housing support bracket from the old transfer case to the new transfer case.

11. Coat the output shaft seal of the new transfer case with a small amount of Mopar 75W-90/GL-5 Gear Lube.

12. Tighten the transfer case filler and drain plugs to 300 in-lbs (35 N-m).

Service Procedure (Continued)

13. Fill the transfer case through the output shaft opening with Mopar 75W-90/GL-5 Gear Lube (Mopar P/N 05010320AA) (Figure 28).

    NOTE: 5-speed transfer cases require 9.25 oz. (270 cc) of gear lube. 6-speed transfer cases require 20.25 oz. (600 cc) of gear lube.

    WARNING: Overfilling the transfer case can cause extensive powertrain damage. Make sure that the transfer case is filled to the correct level.

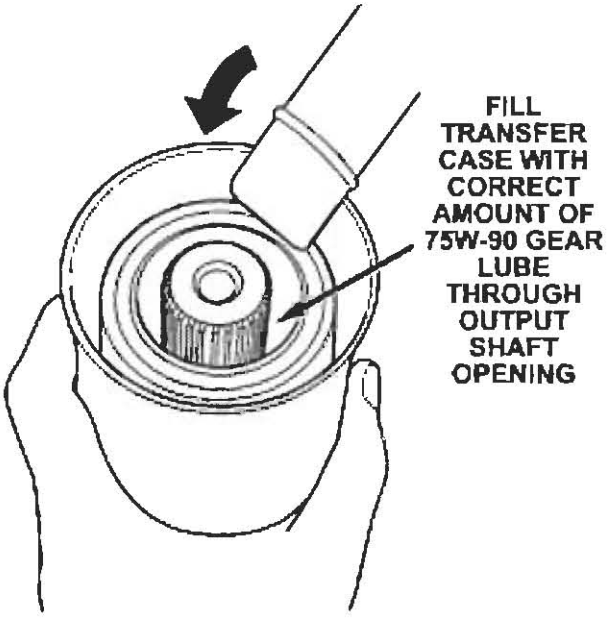

Figure 28

14. Coat the transfer case input shaft and output shaft splines with Mopar White Lithium Grease (Mopar P/N 04318066) or equivalent.
15. Coat the transaxle output shaft and the driveshaft splines with Mopar White Lithium Grease or equivalent.
16. Insert the driveshaft into the transfer case and then mount the transfer case onto the transaxle (Figure 27).
17. Install the transfer case mounting bolts and tighten the mounting bolts to 65 ft-lbs (87 N·m) (Figure 27). Remove the temporary driveshaft support.
18. Remove the temporary exhaust pipe support and then using the supplied exhaust gaskets and nuts, reconnect the front exhaust pipe to the front turbocharger outlet and the rear catalytic converter (Figure 26). Tighten the exhaust nuts to 37 ft-lbs (50 N·m).
19. Connect the front exhaust pipe support (Figure 26).
20. Lower the vehicle.
21. Test drive the vehicle and verify that there are no leaks.

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DIAL System. Claims submitted will be used by DaimlerChrysler to record recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	Labor Operation Number	Time Allowance
Inspect transfer case and change T/C oil	21-B1-71-81	0.3 hours
Inspect and reseal transfer case	21-B1-71-82	1.4 hours
Inspect and replace cracked transfer case	21-B1-71-83	0.8 hours
Inspect, disassemble T/C, inspect gears and replace transfer case	21-B1-71-84	1.1 hours

Add the cost of the recall parts package, if necessary, plus applicable dealer allowance to your claim.

Parts Return

Removed transfer cases must be returned to the Warranty Material Return Center. Removed transfer cases must be drained and fully assembled.

NOTE: See the Warranty Administration Manual, Recall Claim Processing and Material Return Sections, for complete recall claim processing instructions.

Dealer Notification and Vehicle List

All dealers will receive a copy of this dealer recall notification letter by first class mail. An additional copy will be sent through the DCMMS, and the MDS2 will be updated to include this recall in the near future. **Each dealer to whom involved vehicles were invoiced will receive a list of their involved vehicles.** The vehicle list is arranged in Vehicle Identification Number (VIN) sequence. Owners known to DaimlerChrysler are also listed. The lists are for dealer reference in arranging for service of involved vehicles.

DIAL System Functions 53 and VIP

All involved vehicles have been entered to DIAL System Functions 53 and VIP for dealer inquiry as needed.

Function 53 provides involved dealers with an updated VIN list of their incomplete vehicles. The customer name, address and phone number are listed if known. Completed vehicles are removed from Function 53 within several days of repair claim submission. To use this system, type "53" at the "ENTER FUNCTION" prompt, then type "ORDB17".

Owner Notification and Service Scheduling

All involved vehicle owners known to DaimlerChrysler are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification Form. The involved vehicle and recall are identified on the form for owner or dealer reference as needed.

Vehicle Not Available

If a vehicle is not available for service, let us know by filling out the pre-addressed Owner Notification Form or describe the reason on a postcard and mail to:

DaimlerChrysler Corporation
CIMS 482-00-85
800 Chrysler Drive East
Auburn Hills, Michigan 48326-2757

Additional Information

If you have any questions or need assistance in completing this action, please contact your Zone Service Office.

Customer Services Field Operations
DaimlerChrysler Corporation